

ASHLAND/NSP LAKEFRONT SITE
JULY 15, 2004 PROGRESS REPORT (No. 8)
WDNR BRRTS #02-02-00013
CERCLA Docket No. V-W-04-C-764
USEPA ID# WISFN057952

This is the eighth progress report prepared in accordance with the Administrative Order on Consent (AOC) for the Ashland/NSP Lakefront Site, effective November 14, 2003. This report covers activities completed in June 2004. It is intended to meet the requirements described in Task 8 of the Statement of Work appended to the AOC.

Field Activities Completed

The June quarterly sampling was performed from June 14 – 23, 2004. A total of 70 wells were sampled. These included the 13 new wells installed during May. Of these 70 wells, three of the newly installed wells (P-24, -25, -26) were measured for water levels only per the proposed Revision 01 RI/FS draft work plan. Six of the 70 wells (each of these six wells was installed before May 2004) were not sampled for water quality parameters (consistent with past events) because of the presence of more than one foot of DNAPL present, per the WDNR approved sampling program.¹ The water quality data for the June 2004 event will be submitted with the next (August) monthly report.

Tables 1 and 2 attached to this report summarize the water/free-product levels measured during June 2004, as well as historic events. Note that the 13 new wells have not yet been surveyed for horizontal and vertical datum references. This survey is proposed as part of the Revision 01 RI/FS draft work plan. Also note that for the 13 newly installed wells, six (MW-7B, -23A, -23B, -24A, -25A, -26A) are shown as flowing. Each of these wells, along with the previously installed MW-2A(NET), -2B(NET, and -7A is screened in the Copper Falls aquifer.

The coal tar removal system continued to operate. Between May 25, 2004 and June 24, 2004, an additional 167 gallons of product was added to the tank. A total of 513.5 gallons of product was measured in the tank on June 24th. At this rate of production, coal tar will likely be required to be removed from the tank before the end of the summer. A summary of the system monitoring results are included in Tables 3 – 5 of this report. The April laboratory results for the interim system monitoring program are included in Appendix A.

Reporting Activities Completed

During June, the analyses results from the smelt sampling program were evaluated. Details on the results of the smelt collection program including the number of fish in each sample are summarized on Table 6. The laboratory analytical results are included in Tables 7 – 10², and graphical comparisons are shown on Figures 1 and 2. Laboratory

¹ Well MW-13B was not measured because of an obstruction/breach in the well. This well has historically been measured with several feet of free-product; it is likely that the free-product has eroded the integrity of the PVC, and the well will need to be replaced. These same conditions are also likely happening at MW-9 and -9A.

² Data not yet validated.

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results of the analyses are included in Appendix B. A summary of this evaluation is as follows:

Smelt for Ecological Risk Assessment

Smelt caught in the sediment area of concern (AC) yielded consistently higher levels of PAHs than those caught in the reference locations (Figure 1; Table 7).

There were also differences in the smelt from the two reference areas (Table 7). The variability in PAH levels for smelt caught at Reference Location 2, in particular the smelt from composite sample W-2-4, was greater than Reference Location 1. Sample W-2-4 had higher levels of several PAHs including: naphthalene, 2-methylnaphthalene, 1-methylnaphthalene, biphenyl, 2,6 dimethylnaphthalene, acenaphthalene, 2,3,5 trimethylnaphthalene, fluorene, dibenzothiophene, phenanthrene, anthracene, 1-methylphenanthrene, fluoranthene, and pyrene. These values are higher than other samples from either Reference Location 1 or Reference Location 2 (Table 7).

Smelt for Human Health Risk Assessment³

The smelt from the AC yielded consistently higher levels of PAHs (Figure 2) while those caught at the two reference locations were not appreciably different (Figure 2; Table 8). The mean values of each PAH compound collected for each sample at the reference areas are compared to the respective mean values for each compound in the AC in Table 9.

Percent solids and Percent Lipids

There were no substantial differences in either percent solids or lipid content of the Reference Location samples and the AC samples (Table 10). Whole fish tissue samples yielded higher lipids content compared to the prepared fish due to the removal of the relatively high lipids content of the internal organs from the prepared fish.

Preliminary Data Analysis

A preliminary review of the data indicates that smelt caught in the AC yielded consistently higher levels of PAHs than those caught at the reference locations.

The elevated levels of PAHs in smelt caught from the AC is unexpected since smelt are predominantly a pelagic species and spend little time near shore. While smelt come near the shoreline to spawn they are not thought to reside there for extended time periods (Becker 1983)⁴. Based on the results of this sampling effort, however, smelt in the AC

³ Smelt being used for the human health risk assessment were prepared as if for eating by removing the head and entrails.

⁴ Becker, G.C. 1983. The Fishes of Wisconsin. University of Wisconsin Press. Madison WI.

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may spend sufficient time there to acquire a body burden of PAHs when compared to smelt from nearby reference areas. Becker (1983) indicates that some male smelt may spend several days within the spawning location.

However, two potentially confounding conditions should be considered. The first condition is that asphalt-treated fyke nets were used to catch the smelt in the AC while untreated seines and dipnets were used in the two reference areas. The fyke nets were new nets that had been dipped in a thinned asphalt solution to prevent the nets from rotting. The asphalt coating is called Economy Net Dip and is produced by Catahoula Manufacturing Inc. in Jonesville, LA. According to the Material Safety Data Sheets (MSDS) the preservative consists of 57% asphalt, 43% naptha, and 4.8% xylene. The use of these nets may have resulted in cross-contamination. While the smelt were in the net (approximately 15 hours), and also when the nets were lifted into the boat, the smelt would have repeatedly been in contact with the netting material and hence the preservative.

A second potentially confounding condition is related to the fact that while the smelt were in the fyke net they had extensive contact with suspended sediments and wood material from the AC. As previously stated, the severe winds (20-35 mph) the night the fyke net was set roiled the sediments in the shallow areas where the nets were set. This resulted in large amounts of wood material being trapped in the fyke nets. While the fish were in the net for the night and later when the fyke nets were loaded into the boat, the smelt would have been repeatedly in contact with the wood material.

Conclusions and Recommendations

The possibility that cross-contamination of the smelt occurred from either the treated nets, or that the measured body burden of PAHs in the smelt occurred while confined overnight in the fyke nets, cannot be easily resolved. These represent two exclusive conditions. As part of the resolution of these conditions, the following is proposed as part of the future data gathering needed for the baseline risk assessments:

For the first condition, to replicate the conditions the smelt would have encountered, juvenile white suckers (*Catostomus commersoni*) will be confined in both a fyke net with and a fyke net without the preservative. The juvenile white suckers will be of similar size to the collected smelt. They will be held at one of the reference locations for an equivalent duration as the smelt were exposed to the fyke nets (~15 hours). Tissue analysis will be performed on white suckers from each of the nets as well as those from a control sample (not held in nets). This data should provide the data necessary to evaluate the extent of cross-contamination from the fyke nets.

For the second condition, any future fish collections in the AC should be conducted by electrofishing from a boat powered by a small electric motor. This will allow fish to be

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JULY 15, 2004 PROGRESS REPORT (No. 8)
WDNR BRRTS #02-02-00013
CERCLA Docket No. V-W-04-C-764
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captured that have not been forced to be continuously in contact with sediments or contaminated wood material. The use of a small electric motor, at a low thrust level, will minimize the amount of sediment disturbance during the collection process.

Further discussion of these sampling efforts will be presented as part of the responses that are anticipated when USEPA's comments to the Revision 01 RI/FS draft planning documents are received.

Field Activities Planned

Coleman Engineering will continue to monitor the tar removal system on a weekly basis during July.

Reporting Activities Planned

Xcel Energy is prepared to respond to comments to the Revision 01 RI/FS draft Planning Documents upon receipt.

Attachments:

Table 1 – Summary of Groundwater Elevations
Table 2 – Summary of Free Phase Hydrocarbon Thickness
Table 3 – Remediation System Water Quality Monitoring Results
Table 4 – Remediation System Air Monitoring Results
Table 5 – Summary of Coal Tar and Groundwater Volume Removed
Table 6 – Composite Sample Summary – Rainbow Smelt (*Osmerus Mordax*)
Table 7 – Ecological Risk Assessment – Rainbow Smelt Analytical Data SIMPAH
Table 8 – Human Health Risk Assessment - Rainbow Smelt Analytical Data SIMPAH
Table 9 - Human Health Risk Assessment - Rainbow Smelt Data (mean SIMPAHs)
Table 10 - Rainbow Smelt Analytical Data – Percent Solids & Percent Lipids

Appendix A – June System Monitoring - Laboratory Reporting Forms
Appendix B Part 1 – Smelt Analyses - Laboratory Reporting Forms – Percent Lipids & Percent Solids
Appendix B Part 2 – Smelt Analyses - Laboratory Reporting Forms - PAHs

Table 1
Summary of Groundwater Elevations
Northern States Power, Ashland, Wisconsin

Well Location	Reference Elevation	Sep. 10, 2001		Dec. 3 , 2001		Mar. 18, 2002		June 28, 2002		Sept 16, 2002		Dec 16, 2002		Mar. 24, 2003	
		Depth to Water	Groundwater Elevations												
MW-1	634.18	15.08	619.10	14.26	619.92	--	--	14.79	619.39	17.43	616.75	15.28	618.90	15.51	618.67
MW-2	634.85	14.92	619.93	--	--	--	--	--	--	--	--	--	--	--	--
MW-2A	634.24	19.50	614.74	--	--	--	--	--	--	--	--	--	--	--	--
MW-2B	634.68	10.52	624.16	--	--	--	--	--	--	--	--	--	--	--	--
MW-2R	637.43	--	--	--	--	14.70	622.73	15.00	622.43	14.75	622.68	16.21	621.22	16.43	621.00
MW-2AR	636.28	--	--	--	--	20.13	616.15	20.25	616.03	14.87	621.41	20.24	616.04	20.28	616.00
MW-2BR	636.24	--	--	--	--	11.97	624.27	12.03	624.21	12.14	624.10	10.86	625.38	10.61	625.63
MW-3	637.83	3.14	634.69	0.00	637.83	--	--	2.72	635.11	2.16	635.67	3.69	634.14	5.09	632.74
MW-4	640.92	6.40	631.63	4.98	636.05	5.60	635.43	5.02	636.01	5.86	635.17	6.60	634.43	5.78	634.43
MW-4A	641.22	14.28	626.94	14.20	627.02	13.50	627.72	13.10	628.12	14.01	627.21	14.02	627.20	14.36	626.86
MW-4B	640.98	16.61	624.37	15.32	625.66	16.27	624.71	16.73	624.25	17.16	623.82	15.98	625.00	15.93	625.05
MW-5	633.82	18.15	615.67	17.95	615.87	19.44	614.38	17.80	616.02	18.58	615.24	--	--	19.70	614.12
MW-5A	633.72	19.38	614.34	19.26	614.46	19.60	614.12	19.05	614.67	19.17	614.55	--	--	19.09	614.63
MW-5B	633.89	19.14	614.75	19.25	614.64	19.37	614.52	19.03	614.86	19.13	614.76	--	--	18.98	614.91
MW-5C	634.33	9.90	624.43	9.47	624.86	9.33	625.00	9.51	624.82	9.94	624.39	--	--	8.97	625.36
MW-6	644.88	17.01	627.87	15.95	628.93	--	--	14.25	630.63	16.58	628.30	17.04	627.84	15.54	629.34
MW-6A	644.79	20.31	624.48	19.76	625.03	--	--	20.02	624.77	20.63	624.16	19.51	625.28	19.52	625.27
MW-7	612.60	3.92	608.68	4.00	608.60	4.17	608.43	--	--	--	--	--	--	--	--
MW-7A	613.25	flowing	--	flowing	--	flowing	--	--	--	flowing	flowing	flowing	flowing	flowing	flowing
MW-8	634.42	4.79	629.63	4.46	629.96	8.09	626.33	4.52	629.90	3.79	630.63	5.81	628.61	frozen	--
MW-8A	634.62	15.68	618.94	15.24	619.38	15.27	619.35	15.47	619.15	15.72	618.90	15.02	619.60	14.94	619.68
MW-9	637.98	5.92	632.06	--	--	--	--	4.58	633.40	4.50	633.48	6.79	631.19	--	--
MW-9A	637.86	13.66	624.20	13.25	624.61	13.21	624.65	13.92	623.94	13.58	624.28	--	--	12.94	--
MW-9B	638.02	13.80	624.22	13.28	624.74	13.30	624.72	13.86	624.16	14.42	623.60	13.09	624.93	12.96	625.06
MW-9C	637.95	13.67	624.28	13.28	624.67	13.22	624.73	14.06	623.89	14.40	623.55	13.07	624.88	12.97	624.98
MW-10	638.20	4.64	633.56	4.33	633.87	4.59	633.61	3.40	634.80	4.17	634.03	5.06	633.14	8.93	629.27
MW-10A	638.07	15.55	622.52	14.19	623.88	14.21	623.86	14.61	623.46	14.98	623.09	13.91	624.16	14.05	624.02
MW-10B	638.40	22.42	615.98	22.33	616.07	21.25	617.15	21.75	616.65	21.45	616.95	21.71	616.69	frozen	--
MW-11	636.13	8.62	627.51	6.23	629.90	--	--	6.20	629.93	7.03	629.10	9.16	626.97	--	--

Notes: Reference elevation surveyed by Dames & Moore/URS

Table 1
Summary of Groundwater Elevations
Northern States Power, Ashland, Wisconsin

Well Location	Reference Elevation	Sep. 10, 2001		Dec. 3 , 2001		Mar. 18, 2002		June 28, 2002		Sept 16, 2002		Dec 16, 2002		Mar. 24, 2003	
		Depth to Water	Groundwater Elevations												
TW-13	635.72	9.54	626.29	4.58	631.25	4.71	631.12	3.86	631.97	4.50	631.33	--	--	6.06	629.66
MW-13A	635.94	20.79	615.15	21.58	614.36	21.00	614.94	20.70	615.24	20.46	615.48	20.75	615.19	20.50	615.44
MW-13B	635.90	20.83	615.07	21.21	614.69	20.75	615.15	20.62	615.28	20.13	615.77	20.25	615.65	19.98	615.92
MW-13C	636.11	11.73	624.38	11.32	624.79	11.24	624.87	11.95	624.16	12.40	623.71	11.08	625.03	11.03	625.08
MW-13D	637.09	11.81	625.28	11.39	625.70	11.39	625.70	12.03	625.06	12.52	624.57	11.16	625.93	11.08	626.01
MW-14	639.15	4.33	634.82	4.92	634.23	--	--	--	--	3.00	636.15	4.35	634.80	--	--
MW-15	641.21	4.52	636.69	4.33	636.88	3.60	637.61	3.52	637.69	3.73	637.48	5.10	636.11	4.68	636.53
MW-16	642.20	1.74	640.46	1.05	641.15	--	--	0.40	641.80	1.66	640.54	4.20	638.00	8.03	634.17
MW-17	633.88	2.64	631.24	--	--	3.29	630.59	2.56	631.32	2.24	631.64	4.98	628.90	--	--
MW-17A	633.68	19.94	613.74	--	--	20.18	613.50	19.90	613.78	19.77	613.91	19.32	614.36	19.80	613.88
MW-18A	635.57	--	--	--	--	20.50	615.07	20.22	615.35	20.24	615.33	19.93	615.64	20.16	615.41
MW-18B	635.52	--	--	--	--	13.46	622.06	13.75	621.77	13.98	621.54	13.12	622.40	13.31	622.21
MW-19A	636.76	--	--	--	--	21.27	615.49	20.41	616.35	20.90	615.86	20.58	616.18	20.66	616.10
MW-19B	636.65	--	--	--	--	11.74	624.91	11.58	625.07	12.38	624.27	11.25	625.40	10.90	625.75
MW-20A	642.65	--	--	--	--	24.30	618.35	24.25	618.40	24.81	617.84	24.37	618.28	24.85	617.80
MW-21A	637.82	--	--	--	--	21.75	616.07	20.87	616.95	21.57	616.25	21.26	616.56	21.7	616.12
MW-22A	638.34	--	--	--	--	--	--	19.11	619.23	19.44	618.90	19.16	619.18	19.56	618.78
MW-22B	638.50	--	--	--	--	--	--	14.56	623.94	14.79	623.71	13.80	624.70	13.87	624.63
MW-1(NET)	608.40	7.30	601.10	7.47	600.93	8.00	600.40	7.17	601.23	7.09	601.31	7.67	600.73	8.27	600.13
MW-2(NET)	608.23	7.11	601.12	7.24	600.99	7.79	600.44	6.95	601.28	--	--	--	--	7.98	600.25
MW-2A(NET)	607.99	--	--	--	--	--	--	--	--	flowing	flowing	flowing	flowing	flowing	flowing
MW-2B(NET)	608.50	--	--	--	--	--	--	--	--	flowing	flowing	flowing	flowing	flowing	flowing
MW-3(NET)	612.10	7.17	604.93	11.25	600.85	11.38	600.72	10.75	601.35	10.38	601.72	11.52	600.58	12.24	599.86
TW-11	606.80	5.75	601.05	5.75	601.05	5.74	601.06	3.58	603.22	3.75	603.05	6.00	600.80	5.99	600.81
TW-12	608.45	--	--	--	--	--	--	7.38	601.07	--	--	--	--	8.48	599.97

Notes: Reference elevation surveyed by Dames & Moore/URS

Table 1
Summary of Groundwater Elevations
Northern States Power, Ashland, Wisconsin

Well Location	Reference Elevation	June 23, 2003		September 29, 2003		December 15, 2003		March 16, 2004		June 14, 2004	
		Depth to Water	Groundwater Elevations	Depth to Water	Groundwater Elevations	Depth to Water	Groundwater Elevations	Depth to Water	Groundwater Elevations	Depth to Water	Groundwater Elevations
AW-1	--	--	--	--	--	--	--	--	--	flowing	--
AW-2	--	--	--	--	--	--	--	--	--	flowing	--
MW-1	634.18	14.51	619.67	14.80	619.38	NM	--	NM	--	15.51	618.67
MW-2R	637.43	15.59	621.84	15.58	621.85	15.52	621.91	15.32	622.11	15.57	621.86
MW-2AR	636.28	21.09	615.19	20.95	615.33	20.21	616.07	20.58	615.70	21.11	615.17
MW-2BR	636.24	11.67	624.57	11.10	625.14	10.41	625.83	10.68	625.56	10.88	625.36
MW-2C	--	--	--	--	--	2.45	--	9.81	--	10.02	--
MW-3	637.83	2.60	635.23	2.62	635.21	NM	--	5.36	632.47	2.77	632.46
MW-4	640.92	5.07	635.85	6.34	634.58	5.74	635.18	5.31	635.61	5.08	635.84
MW-4A	641.22	13.74	627.48	14.69	626.53	14.14	627.08	14.28	626.94	13.28	627.94
MW-4B	640.98	16.72	624.26	16.35	624.63	16.03	624.95	16.32	624.66	16.05	624.93
MW-5	633.82	19.20	614.62	18.73	615.09	NM	--	18.68	615.14	18.12	596.50
MW-5A	633.72	19.18	614.54	19.17	614.55	NM	--	19.29	614.43	19.74	594.80
MW-5B	633.89	19.15	614.74	19.09	614.80	NM	--	19.08	614.81	19.35	595.39
MW-5C	634.33	10.07	624.26	9.42	624.91	NM	--	9.17	625.16	9.32	614.94
MW-6	644.88	15.28	629.60	16.41	628.47	NM	--	13.41	631.47	14.25	615.35
MW-6A	644.79	20.10	624.69	20.02	624.77	NM	--	19.68	625.11	19.46	605.23
MW-7	612.60	--	--	--	--	--	--	--	--	--	--
MW-7R	--	--	--	--	--	--	--	--	--	8.86	--
MW-7A	613.25	flowing	--	flowing	--	flowing	--	flowing	--	flowing	--
MW-7B	--	--	--	--	--	--	--	--	--	flowing	--
MW-8	634.42	4.29	630.13	4.30	630.12	5.28	629.14	NM	--	3.53	630.89
MW-8A	634.62	15.67	618.95	15.19	619.43	NM	--	NM	--	14.66	619.96
MW-9	637.98	4.54	633.44	5.60	632.38	NM	--	NM	--	4.26	633.72
MW-9A	637.86	14.21	623.65	13.40	624.46	12.98	624.88	13.26	624.60	15.48	622.38
MW-9B	638.02	13.23	624.79	13.37	624.65	13.20	624.82	13.13	624.89	13.60	624.42
MW-9C	637.95	14.28	623.67	13.41	624.54	13.05	624.90	13.30	624.65	15.50	622.45
MW-10	638.20	3.98	634.22	6.29	631.91	5.84	632.36	6.62	631.58	4.46	633.74
MW-10A	638.07	14.67	623.40	14.31	623.76	14.06	624.01	14.25	623.82	14.12	623.95
MW-10B	638.40	22.52	615.88	22.85	615.55	22.27	--	22.15	616.25	24.03	614.37
MW-11	636.13	6.62	629.51	6.60	629.53	NM	--	NM	--	6.76	629.37
TW-13	635.72	4.74	630.98	5.26	630.46	5.10	630.62	NM	--	4.09	631.63
MW-13A	635.94	21.55	614.39	21.27	614.67	20.60	615.34	20.97	614.97	21.01	614.93
MW-13B	635.90	21.38	614.52	--	--	20.12	615.78	20.46	615.44	20.44	615.46
MW-13C	636.11	12.21	623.90	11.47	624.64	11.07	625.04	11.31	624.80	11.31	624.80
MW-13D	637.09	12.25	624.84	11.53	625.56	11.11	625.98	11.45	625.64	11.51	625.58

Notes: Reference elevation surveyed by Dames & Moore/URS

Table 1
Summary of Groundwater Elevations
Northern States Power, Ashland, Wisconsin

Well Location	Reference Elevation	June 23, 2003		September 29, 2003		December 15, 2003		March 16, 2004		June 14, 2004	
		Depth to Water	Groundwater Elevations	Depth to Water	Groundwater Elevations	Depth to Water	Groundwater Elevations	Depth to Water	Groundwater Elevations	Depth to Water	Groundwater Elevations
MW-14	639.15	3.78	635.37	4.33	634.82	NM	--	NM	--	3.63	635.52
MW-15	641.21	4.22	636.99	5.30	635.91	4.77	636.44	4.92	636.29	4.54	636.67
MW-15A	641.44	--	--	--	--	NM	--	15.13	626.31	14.59	626.85
MW-15B	641.47	--	--	--	--	16.48	624.99	16.79	624.68	16.61	624.86
MW-16	642.20	0.73	641.47	1.82	640.38	NM	--	NM	--	0.57	641.63
MW-17	633.88	2.26	631.62	2.52	631.36	2.65	631.23	2.17	631.71	2.33	631.55
MW-17A	633.68	19.82	613.86	19.61	614.07	19.48	614.20	18.27	615.41	19.34	614.34
MW-18A	635.57	20.35	615.22	20.26	615.31	20.12	615.45	20.42	615.15	20.53	615.04
MW-18B	635.52	13.74	621.78	13.37	622.15	14.66	620.86	12.17	623.35	13.35	622.17
MW-19A	636.76	21.05	615.71	20.96	615.80	NM	--	20.83	615.93	21.05	615.71
MW-19B	636.65	12.15	624.50	11.58	625.07	NM	--	11.12	625.53	11.23	625.42
MW-20A	642.65	24.85	617.80	24.85	617.80	24.82	617.83	24.89	617.76	24.73	617.92
MW-21A	637.82	21.84	615.98	21.92	615.90	21.53	616.29	21.38	616.44	21.61	616.21
MW-21B	636.83	--	--	--	--	20.78	616.05	20.94	615.89	20.86	615.97
MW-22A	638.34	19.47	618.87	19.77	618.57	19.40	618.94	19.29	619.05	19.11	619.23
MW-22B	638.50	14.58	623.92	14.15	624.35	13.88	624.62	13.97	624.53	13.98	624.52
MW-23A	--	--	--	--	--	--	--	--	--	flowing	--
MW-23B	--	--	--	--	--	--	--	--	--	flowing	--
MW-24	--	--	--	--	--	--	--	--	--	2.78	--
P-24	--	--	--	--	--	--	--	--	--	3.08	--
MW-24A	--	--	--	--	--	--	--	--	--	flowing	--
MW-25	--	--	--	--	--	--	--	--	--	2.27	--
P-25	--	--	--	--	--	--	--	--	--	2.77	--
MW-25A	--	--	--	--	--	--	--	--	--	flowing	--
MW-26	--	--	--	--	--	--	--	--	--	3.25	--
P-26	--	--	--	--	--	--	--	--	--	3.29	--
MW-26A	--	--	--	--	--	--	--	--	--	flowing	--
MW-1(NET)	608.40	7.41	600.99	7.73	600.67	7.80	600.60	8.12	600.28	7.11	601.29
MW-2(NET)	608.23	7.16	601.07	7.48	600.75	7.56	600.67	7.82	600.41	6.85	601.38
MW-3(NET)	--	--	--	--	--	--	--	--	--	11.19	--
MW-2A(NET)	607.99	flowing	--	flowing	--	flowing	--	flowing	--	flowing	--
MW-2B(NET)	608.50	flowing	--	flowing	--	flowing	--	flowing	--	flowing	--
MW-3(NET)	612.10	11.76	600.34	11.68	600.42	11.68	600.42	12.21	599.89	11.19	600.91
TW-9	--	--	--	--	--	--	--	--	--	7.78	--
TW-11	606.80	6.09	600.71	5.43	601.37	5.21	601.59	5.77	601.03	5.63	601.17
TW-12	608.45	7.66	600.79	7.91	600.54	7.99	600.46	NM	--	4.65	603.80

Notes: Reference elevation surveyed by Dames & Moore/URS

Table 2
Summary of Free Phase Hydrocarbon Thickness
Northern States Power, Ashland, Wisconsin

Well Location	Depth to Bottom	October 6, 1998			November 23, 1998			June 2, 1999		
		Depth to Hydrocarbon	Feet in Well	Feet on Tape	Depth to Hydrocarbon	Feet in Well	Feet on Tape	Depth to Hydrocarbon	Feet in Well	Feet on Tape
EW-1	53.51	41.45	12.06	12.25	40.09	13.42	13.5	35.25	18.26	18.2
MW-7	17.88	(1)	(1)	10.14	(1)	(1)	10.01	(1)	(1)	9.91
MW-9	14.62	13.78	0.84	2.73	14.2	0.42	3.6	14.03	0.59	--
TW-13	14.82	(2)	(2)	(2)	(2)	(2)	(2)	18.10	0.31	2.2
MW-13A	45.33	43.22	2.11	4.73	43.36	1.97	3	43.37	1.96	--
MW-13B	69.82	43.56	26.26	26.1	43.56	26.26	27.6	52.28	17.54	--
MW-15	15.59	14.78	0.81	2.94	13.93	1.66	2.09	13.26	2.33	2.6
Well Location	Depth to Bottom	August 23, 1999			November 29, 1999			September 27, 2000		
		Depth to Hydrocarbon	Feet in Well	Feet on Tape	Depth to Hydrocarbon	Feet in Well	Feet on Tape	Depth to Hydrocarbon	Feet in Well	Feet on Tape
EW-1	53.51	34.31	19.2		(2)	(2)	16.2	(2)	(2)	(2)
MW-7	17.88	(1)	(1)	10.44	(2)	(2)	0	(2)	(2)	(2)
MW-9	14.62	13.02	1.6		(2)	(2)	<1 inch	(2)	(2)	(2)
TW-13	14.82	(2)	< 6 inches	< 6 inches	(2)	(2)	<1 inch	14.32	0.5	0.5
MW-13A	45.33	(1)	(1)	8.5	(2)	(2)	2.1	44.33	1.0	1.0
MW-13B	69.82	(1)	(1)	26	(2)	(2)	12.1	57.49	12.33	12.33
MW-15	15.59	(1)	(1)	10.6	(2)	(2)	0.67	(2)	(2)	(2)
Well Location	Depth to Bottom	December 4, 2000			March 27, 2001			June 11, 2001		
		Depth to Hydrocarbon	Feet in Well	Feet on Tape	Depth to Hydrocarbon	Feet in Well	Feet on Tape	Depth to Hydrocarbon	Feet in Well	Feet on Tape
EW-1	53.51	Not Measured	--	--	Not Measured	--	--	47.51	6.00	6.00
EW-2	50.00	Not Measured		--	Not Measured	--	--	40.5	9.50	9.50
EW-3	70.00	Not Measured	--	--	Not Measured	--	--	68.58	1.42	1.42
MW-2A	44.41	Not Measured	--	--	41.66	2.75	2.75	40.37	4.04	4.04
MW-7	17.88	Frozen	--	--	Frozen	--	--	Damaged	--	--
MW-9	14.62	14.5	0.1	0.1	(2)	(2)	(2)	(2)	(2)	(2)
MW-10B	34.91				34.66	0.25	0.25	34.33	0.58	0.58
TW-13	14.82	14.57	0.25	0.25	14.74	0.08	0.08	(2)	(2)	(2)
MW-13A	45.33	44.25	1.08	1.08	44.25	1.08	1.08	44.83	0.50	0.50
MW-13B	69.82	57.24	12.58	12.58	55.86	13.96	13.96	58.65	11.17	11.17
MW-15	15.59	15.17	0.42	0.25	12.84	2.75	2.75	15.34	0.25	0.25

(1) Free-phase hydrocarbons not detected by interface probe; free-phase hydrocarbons observed on tape.

(2) Product not encountered.

Hydrocarbon thickness in well is difference between depth to bottom and depth to hydrocarbon/water interface.

Hydrocarbon thickness on tape measure after probe removed from the well.

Table 2
Summary of Free Phase Hydrocarbon Thickness
Northern States Power, Ashland, Wisconsin

Well Location	Depth to Bottom	September 10, 2001			December 3, 2001			March 18, 2002		
		Depth to Hydrocarbon	Feet in Well	Feet on Tape	Depth to Hydrocarbon	Feet in Well	Feet on Tape	Depth to Hydrocarbon	Feet in Well	Feet on Tape
EW-1	53.51	Not Measured	--	--	Not Measured	--	--	Not Measured	--	--
EW-2	50.00	Not Measured	--	--	Not Measured	--	--	Not Measured	--	--
EW-3	70.00	Not Measured	--	--	Not Measured	--	--	Not Measured	--	--
MW-2A*	44.41	41.33	3.08	3.08	Not Measured	--	--	43.45**	1.63	1.63
MW-7	17.88	Damaged	--	--	Damaged	--	--	Damaged	--	--
MW-9	14.62	Not Measured	--	--	Not Measured	--	--	Not Measured	--	--
MW-10B	34.91	34.41	0.5	0.5	34.58	0.33	0.33	34.58	0.33	0.33
TW-13	14.82	(2)	(2)	(2)	14.74	0.08	0.08	14.74	0.08	0.08
MW-13A	45.33	43.83	0.58	0.58	43.91	0.5	0.5	44.75	0.58	0.58
MW-13B	69.82	58.99	10.83	10.83	59.65	10.17	10.17	58.32	11.50	11.50
MW-15	15.59	15.26	0.33	0.33	15.34	0.25	0.25	15.51	0.08	0.08
MW-18A*	44.86	--	--	--	--	--	--	(2)	(2)	(2)
MW-19A*	45.20	--	--	--	--	--	--	(2)	(2)	(2)
MW-21A*	46.26	--	--	--	--	--	--	46.25*	0.01*	0.01*
Well Location	Depth to Bottom	June 28, 2002			September 16, 2002			December 16, 2002		
		Depth to Hydrocarbon	Feet in Well	Feet on Tape	Depth to Hydrocarbon	Feet in Well	Feet on Tape	Depth to Hydrocarbon	Feet in Well	Feet on Tape
EW-1	53.51	Not Measured	--	--	Not Measured	--	--	Not Measured	--	--
EW-2	50.00	Not Measured	--	--	Not Measured	--	--	Not Measured	--	--
EW-3	70.00	Not Measured	--	--	Not Measured	--	--	Not Measured	--	--
EW-4	29.50	29.25	0.25	0.25	(2)	(2)	(2)	Not Measured	--	--
MW-2R*	29.40	28.23	1.17	1.17	(2)	(2)	(2)	(2)	(2)	(2)
MW-2AR**	45.08	44.31	0.77	0.77	41.08	4.00	4.00	39.88	5.20	5.20
MW-7	17.88	Abandoned	--	--	Abandoned	--	--	Abandoned	--	--
MW-9	14.62	Not Measured	--	--	(2)	(2)	(2)	Not Measured	--	--
MW-10B	34.91	34.08	0.83	0.73	33.74	1.17	1.17	33.40	1.51	1.51
TW-13	14.82	Trace	--	--	Trace	--	--	Trace	--	--
MW-13A	45.33	45.25	0.08	0.08	44.33	1.00	1.00	44.33	1.00	1.00
MW-13B	69.82	67.99	1.83	1.83	59.40	10.42	10.42	58.32	11.50	11.50
MW-15	15.59	15.46	0.13	0.13	15.55	0.04	0.04	15.46	0.13	0.13
MW-18A*	44.86	(2)	(2)	1	(2)	(2)	(2)	(2)	(2)	(2)
MW-19A*	45.20	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
MW-21A*	46.26	Trace	--	--	Trace	--	--	(2)	(2)	(2)
MW-22A*	27.55	(2)	(2)	(2)	(2)	(2)	(2)	27.42	0.13	0.13

(1) Free-phase hydrocarbons not detected by interface probe; free-phase hydrocarbons observed on tape.

(2) Product not encountered.

Hydrocarbon thickness in well is difference between depth to bottom and depth to hydrocarbon/water interface.

Hydrocarbon thickness on tape measure after probe removed from the well.

Table 2
Summary of Free Phase Hydrocarbon Thickness
Northern States Power, Ashland, Wisconsin

Well Location	Depth to Bottom	March 24, 2003			June 23, 2003			September 29, 2003		
		Depth to Hydrocarbon	Feet in Well	Feet on Tape	Depth to Hydrocarbon	Feet in Well	Feet on Tape	Depth to Hydrocarbon	Feet in Well	Feet on Tape
EW-1	53.51	Not Measured	--	--	Not Measured	--	--	Not Measured	--	--
EW-2	50.00	Not Measured	--	--	Not Measured	--	--	Not Measured	--	--
EW-3	70.00	Not Measured	--	--	Not Measured	--	--	Not Measured	--	--
EW-4	29.50	Not Measured	--	--	Not Measured	--	--	Not Measured	--	--
MW-2R	29.40	27.32	2.08	2.08	28.02	1.38	1.38	27.53	1.87	1.87
MW-2AR	45.08	40.91	4.17	4.17	38.08	7.00	7.00	41.96	3.12	3.12
MW-3 (NET)	17.60	Not Measured	--	--	Not Measured	--	--	Not Measured	--	--
MW-7	17.88	Abandoned	--	--	Abandoned	--	--	Abandoned	--	--
MW-9	14.62	Not Measured	--	--	Not Measured	--	--	Not Measured	--	--
MW-10B	34.91	Not Measured	--	--	33.24	1.67	1.67	33.83	1.08	1.08
TW-11	14.00	Not Measured	--	--	13.50	0.50	0.50	13.17	0.83	0.83
TW-13	14.82	Trace	--	--	(2)	(2)	(2)	(2)	(2)	(2)
MW-13A	45.33	44.06	1.27	1.27	44.33	Trace	Trace	45.31	0.02	0.02
MW-13B	69.82	58.00	11.82	11.82	(3)	(3)	(3)	(3)	(3)	(3)
MW-15	15.59	15.49	0.10	0.10	15.14	0.45	0.45	15.43	0.16	0.16
MW-15A		--	--	--	--	--	--	--	--	--
MW-18A	44.86	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
MW-19A	45.20	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
MW-21A	46.26	(2)	(2)	(2)	Trace	Trace	Trace	(2)	(2)	(2)
MW-22A	27.55	27.26	0.29	0.29	(2)	(2)	(2)	(2)	(2)	(2)

(1) Free-phase hydrocarbons not detected by interface probe; free-phase hydrocarbons observed on tape.

(2) Product not encountered.

(3) Measuring device did not reach the well bottom. Suspected obstruction near well screen.

(4) Trace floating LNAPL encountered in well.

Table 2
Summary of Free Phase Hydrocarbon Thickness
Northern States Power, Ashland, Wisconsin

Well Location	Depth to Bottom	December 15, 2003			March 16, 2004			June 14, 2004		
		Depth to Hydrocarbon	Feet in Well	Feet on Tape	Depth to Hydrocarbon	Feet in Well	Feet on Tape	Depth to Hydrocarbon	Feet in Well	Feet on Tape
EW-1	53.51	Not Measured	--	--	Not Measured	--	--	Not Measured	--	--
EW-2	50.00	Not Measured	--	--	Not Measured	--	--	Not Measured	--	--
EW-3	70.00	Not Measured	--	--	Not Measured	--	--	Not Measured	--	--
EW-4	29.50	Not Measured	--	--	Not Measured	--	--	Not Measured	--	--
MW-2R	29.40	27.90	1.50	1.50	28.00	1.40	1.40	28.26	1.14	1.14
MW-2AR	45.08	40.63	4.45	4.45	43.43	1.65	1.65	41.99	3.09	3.09
MW-3 (NET)	17.60	--	trace ⁴	trace ⁴	17.59	0.01	0.01	17.60	Trace	Trace
MW-4B	52.30	Not Measured	--	--	Not Measured	--	--	52.30	Trace	Trace
MW-7R	17.01	--	--	--	--	--	--	17.01	(2)	(2)
MW-9	14.62	Not Measured	--	--	Not Measured	--	--	14.62	(2)	(2)
TW-9	16.20	Not Measured	--	--	Not Measured	--	--	13.87	2.33	2.33
MW-10B	34.91	32.31	2.60	2.60	33.01	1.90	1.90	33.83	1.08	1.08
TW-11	14.00	12.92	1.08	1.08	13.20	0.80	0.80	12.92	1.08	1.08
TW-13	14.82	14.82	(2)	(2)	Not Measured	--	--	14.82	(2)	(2)
MW-13A	45.33	45.08	0.25	0.25	45.08	0.25	0.25	44.91	0.42	0.42
MW-13B	69.82	58.57	11.25	11.25	64.40	5.42	5.42	(3)	(3)	(3)
MW-15	15.59	15.57	0.02	0.02	15.58	0.01	0.01	15.04	0.55	0.55
MW-15A	30.00	26.25	3.75	3.75	Not Measured	--	--	29.70	0.30	0.30
MW-18A	44.86	44.86	(2)	(2)	(2)	(2)	(2)	44.86	(2)	(2)
MW-19A	45.20	Not Measured	--	--	(2)	(2)	(2)	45.20	(2)	(2)
MW-21A	46.26	46.24	0.02	0.02	(2)	(2)	(2)	46.26	(2)	(2)
MW-22A	27.55	27.51	0.04	0.04	27.54	0.01	0.01	27.55	(2)	(2)

- (1) Free-phase hydrocarbons not detected by interface probe; free-phase hydrocarbons observed on tape.
- (2) Product not encountered.
- (3) Measuring device did not reach the well bottom. Suspected obstruction near well screen.
- (4) Trace floating LNAPL encountered in well.

Table 3
Remediation System Water Quality Monitoring Results
Northern States Power, Ashland, Wisconsin

June 2004

Analyte	Units	Influent	Precarbon	Effluent	(⁽¹⁾ POTW	Method	(⁽³⁾ Frequency
VOCs							
1,1,1,2-TETRACHLOROETHANE	ug/L	<280	<22	<0.28	--	EPA 8260	Monthly
1,1,1-TRICHLOROETHANE	ug/L	<270	<21	<0.27	--	EPA 8260	Monthly
1,1,2,2-TETRACHLOROETHANE	ug/L	<330	<26	<0.33	--	EPA 8260	Monthly
1,1,2-TRICHLOROETHANE	ug/L	<420	<33	<0.42	--	EPA 8260	Monthly
1,1-DICHLOROETHANE	ug/L	<300	<24	<0.3	--	EPA 8260	Monthly
1,1-DICHLOROETHENE	ug/L	<410	<33	<0.41	--	EPA 8260	Monthly
1,1-DICHLOROPROPENE	ug/L	<320	<26	<0.32	--	EPA 8260	Monthly
1,2,3-TRICHLOROBENZENE	ug/L	<360	<29	<0.36	--	EPA 8261	Monthly
1,2,3-TRICHLOROPROPANE	ug/L	<440	<35	<0.44	--	EPA 8260	Monthly
1,2,4-TRICHLOROBENZENE	ug/L	<370	<29	<0.37	--	EPA 8260	Monthly
1,2,4-TRIMETHYLBENZENE	ug/L	<380>	<24	<0.31	--	EPA 8260	Monthly
1,2-DIBROMO-3-CHLOROPROPANE	ug/L	<330	<26	<0.33	--	EPA 8260	Monthly
1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	ug/L	<300	<24	<0.3	--	EPA 8260	Monthly
1,2-DICHLOROBENZENE	ug/L	<280	<22	<0.28	--	EPA 8260	Monthly
1,2-DICHLOROETHANE	ug/L	<340	<27	<0.34	--	EPA 8260	Monthly
1,2-DICHLOROPROPANE	ug/L	<350	<28	<0.35	--	EPA 8260	Monthly
1,3,5-TRIMETHYLBENZENE (MESITYLENE)	ug/L	<390	<31	<0.39	--	EPA 8260	Monthly
1,3-DICHLOROBENZENE	ug/L	<240	<19	<0.24	--	EPA 8260	Monthly
1,3-DICHLOROPROPANE	ug/L	<340	<27	<0.34	--	EPA 8260	Monthly
1,4-DICHLOROBENZENE	ug/L	<230	<19	<0.23	--	EPA 8260	Monthly
2,2-DICHLOROPROPANE	ug/L	<440	<35	<0.44	--	EPA 8260	Monthly
2-CHLOROTOLUENE	ug/L	<390	<31	<0.39	--	EPA 8260	Monthly
4-CHLOROTOLUENE	ug/L	<370	<29	<0.37	--	EPA 8260	Monthly
BENZENE	ug/L	4800	<47>	<0.29	--	EPA 8260	Monthly
BROMOBENZENE	ug/L	<100	<8.2	<0.1	--	EPA 8260	Monthly
BROMOCHLOROMETHANE	ug/L	<270	<21	<0.27	--	EPA 8260	Monthly
BROMODICHLOROMETHANE	ug/L	<320	<26	<0.32	--	EPA 8260	Monthly
BROMOFORM	ug/L	<280	<22	<0.28	--	EPA 8260	Monthly
BROMOMETHANE	ug/L	<390	<31	<0.39	--	EPA 8260	Monthly
CARBON TETRACHLORIDE	ug/L	<300	<24	<0.3	--	EPA 8260	Monthly
CHLOROBENZENE	ug/L	<210	<17	<0.21	--	EPA 8260	Monthly
CHLOROETHANE	ug/L	<1700	<140	<1.7	--	EPA 8260	Monthly
CHLOROFORM	ug/L	<300	<24	<0.3	--	EPA 8260	Monthly
CHLOROMETHANE	ug/L	<240	<19	<0.24	--	EPA 8260	Monthly
CIS-1,2-DICHLOROETHYLENE	ug/L	<400	<32	<0.4	--	EPA 8260	Monthly
CIS-1,3-DICHLOROPROPENE	ug/L	<270	<21	<0.27	--	EPA 8260	Monthly
CYMENE	ug/L	<300	<24	<0.3	--	EPA 8260	Monthly
DIBROMOCHLOROMETHANE	ug/L	<290	<23	<0.29	--	EPA 8260	Monthly
DIBROMOMETHANE	ug/L	<320	<25	<0.32	--	EPA 8260	Monthly
DICHLORODIFLUOROMETHANE	ug/L	<180	<14	<0.18	--	EPA 8260	Monthly
ETHYLBENZENE	ug/L	<260	<21	<0.26	--	EPA 8260	Monthly
HEXACHLOROBUTADIENE	ug/L	<410	<33	<0.41	--	EPA 8260	Monthly
ISOPROPYL ETHER	ug/L	<350	<28	<0.35	--	EPA 8260	Monthly
ISOPROPYLBENZENE (CUMENE)	ug/L	<360	<29	<0.36	--	EPA 8260	Monthly
M,P-XYLENE (SUM OF ISOMERS)	ug/L	<720>	<49	<0.62	--	EPA 8260	Monthly
METHYLENE CHLORIDE	ug/L	<430	<34	<0.43	--	EPA 8260	Monthly
NAPHTHALENE	ug/L	13,000	550	<0.39	--	EPA 8260	Monthly
N-BUTYLBENZENE	ug/L	<310	<25	<0.31	--	EPA 8260	Monthly
N-PROPYLBENZENE	ug/L	<340	<27	<0.34	--	EPA 8260	Monthly
O-XYLENE (1,2-DIMETHYLBENZENE)	ug/L	<440>	<21	<0.27	--	EPA 8260	Monthly
SEC-BUTYLBENZENE	ug/L	<330	<26	<0.33	--	EPA 8260	Monthly
STYRENE	ug/L	1300	<25	<0.32	--	EPA 8260	Monthly
T-BUTYLBENZENE	ug/L	<310	<25	<0.31	--	EPA 8260	Monthly
TERT-BUTYL METHYL ETHER	ug/L	<310	<24	<0.31	--	EPA 8260	Monthly
TETRACHLOROETHYLENE (PCE)	ug/L	<310	<24	<0.31	--	EPA 8260	Monthly
TOLUENE	ug/L	3400	<30>	<0.34	--	EPA 8260	Monthly
TRANS-1,2-DICHLOROETHENE	ug/L	<350	<28	<0.35	--	EPA 8260	Monthly
TRANS-1,3-DICHLOROPROPENE	ug/L	<320	<26	<0.32	--	EPA 8260	Monthly
TRICHLOROETHYLENE (TCE)	ug/L	<250	<20	<0.25	--	EPA 8260	Monthly
TRICHLOROFLUOROMETHANE	ug/L	<380	<31	<0.38	--	EPA 8260	Monthly
VINYL CHLORIDE	ug/L	<110	<8.5	<0.11	--	EPA 8260	Monthly
Total VOCs	ug/L	24,040	627	0	⁽²⁾ 1000		

Collected June 14, 2004

< - Less Than Limit of Detection

>> Between Limit of Detection and Limit of Quantification

Concentrations exceeding the POTW have been shaded

⁽¹⁾ POTW standards for effluent discharge

⁽²⁾ 1000 = POTW standard for total BTEX for effluent discharge

⁽³⁾ BTEX and PVOCS collected monthly, remaining analytes collected semi-annually

Table 3
Remediation System Water Quality Monitoring Results
Northern States Power, Ashland, Wisconsin

June 2004

Analyte	Units	Influent	Precarbon	Effluent	⁽¹⁾ POTW	Method	Frequency
PAHs							
1-METHYLNAPHTHALENE	ug/L	(4)	(4)	0.043	--	SW8310	Quarterly
2-METHYLNAPHTHALENE	ug/L	(4)	(4)	0.12	--	SW8310	Quarterly
ACENAPHTHENE	ug/L	(4)	(4)	<0.016	--	SW8310	Quarterly
ACENAPHTHYLENE	ug/L	(4)	(4)	<0.05	--	SW8310	Quarterly
ANTHRACENE	ug/L	(4)	(4)	<0.012	--	SW8310	Quarterly
BENZO(A)ANTHRACENE	ug/L	(4)	(4)	<0.016	--	SW8310	Quarterly
BENZO(A)PYRENE	ug/L	(4)	(4)	<0.011	--	SW8310	Quarterly
BENZO(B)FLUORANTHENE	ug/L	(4)	(4)	<0.018	--	SW8310	Quarterly
BENZO(G,H,I)PERYLENE	ug/L	(4)	(4)	<0.011	--	SW8310	Quarterly
BENZO(K)FLUORANTHENE	ug/L	(4)	(4)	<0.012	--	SW8310	Quarterly
CHRYSENE	ug/L	(4)	(4)	<0.021	--	SW8310	Quarterly
DIBENZ(A,H)ANTHRACENE	ug/L	(4)	(4)	<0.016	--	SW8310	Quarterly
FLUORANTHENE	ug/L	(4)	(4)	<0.01	--	SW8310	Quarterly
FLUORENE	ug/L	(4)	(4)	<0.019>	--	SW8310	Quarterly
INDENO(1,2,3-C,D)PYRENE	ug/L	(4)	(4)	<0.037	--	SW8310	Quarterly
NAPHTHALENE	ug/L	(4)	(4)	0.12	--	SW8310	Quarterly
PHENANTHRENE	ug/L	(4)	(4)	<0.036>	--	SW8310	Quarterly
PYRENE	ug/L	(4)	(4)	<0.011	--	SW8310	Quarterly
Inorganics							
OIL & GREASE	mg/L	(4)	(4)	<1.1	50	A5520	Quarterly

Collected June 14, 2004

< - Less Than Limit of Detection

<> Between Limit of Detection and Limit of Quantification

Concentrations exceeding the POTW have been shaded

⁽¹⁾ POTW standards for effluent discharge

⁽²⁾ 1000 = POTW standard for total BTEX for effluent discharge

⁽⁴⁾ Parameter not analyzed

Table 4
Remediation System Air Monitoring Results
Northern States Power, Ashland, Wisconsin

June 2004

Analyte	Units	Air Stripper	1st Stage Carbon	Effluent	Method	Frequency
VOCs						
Volume Collected	Liters	3.0	3.0	5.0		Monthly
Benzene	mg	<0.02	<0.02	<0.02	NIOSH 1501	Monthly
Benzene	mg/m ³	<6.67	<6.67	<4.0		Monthly
Ethylbenzene	mg	<0.02	<0.02	<0.02	NIOSH 1501	Monthly
Ethylbenzene	mg/m ³	<6.67	<6.67	<4.0		Monthly
Hydrocarbons (total)	mg	0.035	0.039	0.045	NIOSH 1550	Monthly
Hydrocarbons (total)	mg/m ³	11.7	13.0	9.0		Monthly
Toluene	mg	<0.02	<0.02	<0.02	NIOSH 1501	Monthly
Toluene	mg/m ³	<6.67	<6.67	<4.0		Monthly
Xylene, Total	mg	<0.03	<0.03	<0.03	NIOSH 1501	Monthly
Xylene, Total	mg/m ³	<10.0	<10.0	<6.0		Monthly

Collected June 24, 2004

< - Less Than Limit of Detection

<> Between Limit of Detection and Limit of Quantification

Table 5
Summary of Coal Tar and Groundwater Volume Removed
Northern States Power, Ashland, Wisconsin

Date	Cumulative Volume of Coal Tar Removed (gals)	Cumulative Volume of Coal Tar Removed (lbs)	Cumulative Volume of Groundwater Removed from Wells EW-1, EW-2, EW-3 (gals)	Cumulative Volume of Groundwater Removed from well EW-4 (gals)	Cumulative Volume of Total Groundwater Removed (gals)
20-Feb-01	554.2	4,853	22,826	0	22,826
30-Mar-01	850.0	7,443	44,613	0	44,613
26-Apr-01	915.2	8,014	56,978	0	56,978
17-May-01	1,078.2	9,442	58,967	0	58,967
11-Jun-01	1,291.2	11,307	61,094	0	61,094
31-Jul-01	1,535.2	13,444	65,758	0	65,758
15-Aug-01	1,578.0	13,819	65,758	0	65,758
12-Sep-01	1,578.0	14,193	81,524	0	81,524
28-Sep-01	1,789.9	15,674	104,500	0	104,500
12-Nov-01 ¹	2,486.4	21,773	104,900	0	104,900
13-Nov-01	2,551.6	22,344	106,200	0	106,200
14-Nov-01	2,559.7	22,415	107,600	0	107,600
19-Nov-01	2,600.5	22,772	114,200	0	114,200
28-Nov-01	2,682.0	23,486	125,200	0	125,200
03-Dec-01	2,779.8	24,342	131,500	0	131,500
12-Dec-01	2,877.6	25,199	142,300	0	142,300
19-Dec-01	2,975.4	26,055	155,328	0	155,328
03-Jan-02	3,105.8	27,197	172,000	0	172,000
05-Feb-02	3,105.7	27,197	173,116	0	173,116
11-Feb-02	3,122.0	27,340	178,300	0	178,300
12-Feb-02	3,122.1	27,340	180,100	0	180,100
19-Feb-02	3,122.1	27,340	182,900	0	182,900
06-Mar-02	3,138.4	27,483	183,000	0	183,000
12-Mar-02	3,187.3	27,911	194,400	0	194,400
18-Mar-02	3,219.9	28,196	199,400	0	199,400
27-Mar-02	3,317.7	29,053	210,500	0	210,500
03-Apr-02	3,350.3	29,338	216,600	0	216,600
09-Apr-02	3,399.2	29,767	224,000	0	224,000
23-Apr-02	3,473.6	30,419	238,100	0	238,100
30-Apr-02	3,514.3	30,775	246,700	0	246,700
08-May-02	3,538.8	30,989	256,900	0	256,900
15-May-02	3,587.7	31,418	264,500	0	264,500
20-May-02	3,612.1	31,631	266,900	0	266,900
24-May-02	3,636.5	31,845	268,365	10,935	279,300
28-May-02	3,652.8	31,988	272,215	13,185	285,400
17-Jun-02	3,669.1	32,131	287,693	28,507	316,200
25-Jun-02	3,726.2	32,631	295,908	35,492	331,400
02-Jul-02	3,766.9	32,987	299,147	42,153	341,300
09-Jul-02	3,783.2	33,130	306,783	42,717	349,500
17-Jul-02	3,799.5	33,272	314,710	49,990	364,700
22-Jul-02	3,824.0	33,487	319,384	54,516	373,900
29-Jul-02	3,864.7	33,843	326,542	57,158	383,700
08-Aug-02	3,905.5	34,201	334,406	68,394	402,800
15-Aug-02	3,921.8	34,343	340,391	68,609	409,000
09-Sep-02	3,942.1	34,521	343,084	79,816	422,900
19-Sep-02	4,003.3	35,057	350,659	91,441	442,100
26-Sep-02	4,003.3	35,057	356,565	91,535	448,100
04-Oct-02	4,003.3	35,057	363,135	93,265	456,400
11-Oct-02	4,003.3	35,057	374,863	94,737	469,600
18-Oct-02	4,027.8	35,272	374,863	94,737	485,600
25-Oct-02	4,158.2	36,414	379,459	116,901	496,360
31-Oct-02	4,166.3	36,484	381,556	121,045	502,600
08-Nov-02	4,166.3	36,484	390,756	121,045	511,800
21-Nov-02	4,753.3	41,625	387,629	124,272	511,900
26-Nov-02	4,773.6	41,803	391,434	127,566	519,000
04-Dec-02	4,789.9	41,945	398,205	129,795	528,000
10-Dec-02	4,802.2	42,053	403,230	130,971	534,200
18-Dec-02	4,826.6	42,267	410,356	132,444	542,800
23-Dec-02	4,842.9	42,409	412,967	133,333	546,300
30-Dec-02	4,855.1	42,516	415,842	134,458	550,300
10-Jan-03	4,883.7	42,767	425,575	136,125	561,700
15-Jan-03	4,900.0	42,910	429,541	136,859	566,400
20-Jan-03	4,920.3	43,087	434,133	137,567	571,700
30-Jan-03	4,952.9	43,373	442,556	138,844	581,400
13-Feb-03	4,989.6	43,694	454,019	140,881	594,900
19-Feb-03	5,007.8	43,854	456,851	141,149	598,000
26-Feb-03	5,036.3	44,103	463,081	142,019	605,100
04-Mar-03	5,036.3	44,103.1	468,458	142,742	611,200
27-Mar-03	5,036.3	44,103.1	471,979	143,488	615,467

Table 5
Summary of Coal Tar and Groundwater Volume Removed
Northern States Power, Ashland, Wisconsin

Date	Cumulative Volume of Coal Tar Removed (gals)	Cumulative Volume of Coal Tar Removed (lbs)	Cumulative Volume of Groundwater Removed from Wells EW-1, EW-2, EW-3 (gals)	Cumulative Volume of Groundwater Removed from well EW-4 (gals)	Cumulative Volume of Total Groundwater Removed (gals)
02-Apr-03	5,097.5	44,639	478,430	144,870	623,300
09-Apr-03	5,105.6	44,710	483,745	145,855	629,600
16-Apr-03	5,121.9	44,853	487,333	148,267	635,600
23-Apr-03 ²	4,910.0	42,997	492,504	152,796	645,300
29-Apr-03	4,926.3	43,140	495,729	155,771	651,500
07-May-03	4,926.3	43,140	499,877	158,223	658,100
15-May-03	4,926.3	43,140	499,877	158,223	658,100
21-May-03	4,942.6	43,283	515,230	172,470	687,700
28-May-03	4,958.9	43,425	522,943	175,357	698,300
03-Jun-03	4,967.1	43,497	524,602	176,598	701,200
10-Jun-03	4,975.2	43,568	529,728	178,472	708,200
17-Jun-03	4,983.4	43,640	534,411	179,789	714,200
26-Jun-03	4,983.4	43,640	540,050	180,950	721,000
02-Jul-03	4,983.4	43,640	543,291	181,909	725,200
09-Jul-03	4,983.4	43,640	549,991	181,909	731,900
16-Jul-03	4,991.5	43,711	553,174	185,526	738,700
22-Jul-03	4,999.7	43,783	556,643	186,957	743,600
30-Jul-03	5,007.8	43,854	560,726	188,074	748,800
06-Aug-03	5,040.4	44,139	562,275	188,825	751,100
20-Aug-03	5,081.2	44,496	567,361	191,139	758,500
28-Aug-03	5,138.2	44,995	570,561	191,139	761,700
04-Sep-03	5,316.7	46,559	572,759	191,841	764,600
11-Sep-03	5,382.7	47,137	575,659	191,841	767,500
19-Sep-03	5,423.5	47,494	579,259	191,841	771,100
25-Sep-03	5,366.4	46,994	578,399	197,101	775,500
03-Oct-03	5,382.7	47,137	584,399	197,101	781,500
09-Oct-03	5,399.0	47,279	583,771	198,229	782,000
24-Oct-03	5,452.0	47,743	589,679	200,821	790,500
29-Oct-03	5,472.4	47,922	592,579	200,821	793,400
06-Nov-03	5,521.3	48,350	596,979	200,821	797,800
13-Nov-03	5,537.6	48,493	598,764	200,836	799,600
11/19/2003	5,562.1	48,708	598,895	201,005	799,900
25-Nov-03	5,582.4	48,885	601,544	202,056	803,600
03-Dec-03	5,611.0	49,136	604,762	203,438	808,200
11-Dec-03	5,635.4	49,349	608,144	204,556	812,700
19-Dec-03	5,659.9	49,564	612,612	205,488	818,100
26-Dec-03	5,676.4	49,708	615,254	206,146	821,400
29-Dec-03	5,684.3	49,778	615,310	206,190	821,500
09-Jan-04	5,696.5	49,884	618,110	206,190	824,300
20-Jan-04	5,700.6	49,920	619,147	207,153	826,300
29-Jan-04	5,704.7	49,956	626,409	208,091	834,500
03-Feb-04	5,716.9	50,063	630,515	208,485	839,000
11-Feb-04	5,716.9	50,063	633,094	208,706	841,800
17-Feb-04	5,725.1	50,135	637,911	209,089	847,000
26-Feb-04	5,733.2	50,206	645,083	209,617	854,700
02-Mar-04	5,745.4	50,313	649,270	209,930	859,200
12-Mar-04	5,765.8	50,491	657,501	210,999	868,500
19-Mar-04	5,798.8	50,780	664,798	212,102	876,900
25-Mar-04	5,810.6	50,884	669,603	214,997	884,600
02-Apr-04	5,814.7	50,920	669,738	215,163	884,900
05-Apr-04	5,814.7	50,920	672,233	217,667	889,900
23-Apr-04	5,818.8	50,955	672,869	218,231	891,100
27-Apr-04	5,826.9	51,026	673,684	219,616	893,300
12-May-04	5,843.2	51,169	678,475	223,625	902,100
17-May-04	5,847.3	51,205	682,349	225,151	907,500
25-May-04	5,863.6	51,348	688,062	226,538	914,600
04-Jun-04	5,875.8	51,455	697,811	230,589	928,400
10-Jun-04	5,904.4	51,705	703,940	232,060	936,000
14-Jun-04	5,928.8	51,919	708,258	232,742	941,000
24-Jun-04	5,985.9	52,419	719,009	234,191	953,200
02-Jul-04	6,030.7	52,811	726,095	235,205	961,300
06-Jul-04	6,055.1	53,025	729,338	235,762	965,100

¹ Increase in coal tar removal w/ no change in groundwater removal volume due to coal tar collection tank and wash tank being pumped out and shipped to WRR in Eau Claire, WI. Total volume of 1324 gallons, w/ a current estimate of 85% coal tar in that volume.

² Correction of revised quantity of coal tar removed on 4/23/2003 of -211.9 gallons due to settling of emulsified coal tar measured on this date.

Table 6
Ashland/NSP Lakefront Superfund Site
Composite Sample Summary
Rainbow Smelt (*Osmerus mordax*)

Location	Sample ID	Sample Type	Number in Sample	Pre-Homogenization Weight of Sample (g)	Post-Homogenization Weight of Sample (g)	Sex of Sample	Mean Length (mm)	Maximum Length (mm)	Minimum Length (mm)	% Length of Smallest Indiv. Compared to Largest Indiv.	External Signs of Stress
Reference Location 1 (Pamida Beach)	NS-TA-OMORDAX-W-1-1	Ecological Risk	13	213.00	206.56	M	150	166	140	84%	N
	NS-TA-OMORDAX-W-1-2	Ecological Risk	8	180.24	174.00	M	165	181	154	85%	N
	NS-TA-OMORDAX-W-1-3	Ecological Risk	12	182.78	173.45	M	138	145	132	91%	N
	NS-TA-OMORDAX-F-1-4	Human Risk	23	195.50	187.13	M	137	147	125	85%	N
	NS-TA-OMORDAX-F-1-5	Human Risk	17	194.85	"	M	145	157	137	87%	N
	NS-TA-OMORDAX-F-1-6	Human Risk	15	179.13	171.15	F	157	188	137	73%	N
	NS-TA-OMORDAX-F-1-7	Human Risk	19	213.67	204.78	M	147	156	140	90%	N
	NS-TA-OMORDAX-W-1-8	Ecological Risk	8	206.13	204.22	F	168	195	118	61% ¹	N
	NS-TA-OMORDAX-F-1-DUP	Human Risk	13	178.30	170.43	F	136	148	126	85%	N
	NS-TA-OMORDAX-F-1-MS/MSD	Human Risk	22	204.23	198.73	M	137	155	125	81%	N
Reference Location 2 (Near (North) of Americinn Hotel)	NS-TA-OMORDAX-W-2-1	Ecological Risk	18	204.75	196.26	M	131	137	124	91%	N
	NS-TA-OMORDAX-W-2-2	Ecological Risk	13	197.54	192.29	F	142	155	132	85%	N
	NS-TA-OMORDAX-W-2-3	Ecological Risk	13	177.90	172.49	M	139	152	127	84%	N
	NS-TA-OMORDAX-W-2-4	Ecological Risk	9	188.28	183.68	M	158	172	145	84%	N
	NS-TA-OMORDAX-F-2-5	Human Risk	18	186.26	181.42	M	140	150	130	87%	N
	NS-TA-OMORDAX-F-2-6	Human Risk	21	179.79	164.13	M	132	144	117	81%	N
	NS-TA-OMORDAX-F-2-7	Human Risk	20	158.92	153.11	F	133	151	123	81%	N
	NS-TA-OMORDAX-F-2-8	Human Risk	20	172.73	170.02	M	133	149	119	80%	N
	NS-TA-OMORDAX-W-2-DUP	Ecological Risk	20	196.32	186.04	M	125	135	112	83%	N
	NS-TA-OMORDAX-W-2-MS/MSD	Ecological Risk	19	203.33	194.27	M	128	141	120	85%	N
Sediment Area of Concern	NS-TA-OMORDAX-F-3-1	Human Risk	12	200.13	195.53	M	160	172	147	85%	N
	NS-TA-OMORDAX-F-3-2	Human Risk	17	193.85	187.78	M	145	155	135	87%	N
	NS-TA-OMORDAX-F-3-3	Human Risk	16	191.63	187.98	M	146	159	137	86%	N
	NS-TA-OMORDAX-F-3-4	Human Risk	16	194.44	189.62	M	148	165	140	85%	Y ²
	NS-TA-OMORDAX-F-3-5	Human Risk	15	183.85	175.72	M	148	158	141	89%	N
	NS-TA-OMORDAX-F-3-6	Human Risk	21	186.53	180.46	M	135	139	130	94%	N
	NS-TA-OMORDAX-F-3-7	Human Risk	19	200.70	193.16	F	146	176	124	70% ¹	N
	NS-TA-OMORDAX-F-3-8	Human Risk	17	198.42	193.94	M	146	156	139	89%	N
	NS-TA-OMORDAX-F-3-DUP1	Human Risk	20	173.69	164.23	M	134	145	124	86%	N
	NS-TA-OMORDAX-F-3-MS/MSD1	Human Risk	20	184.73	178.97	M	138	150	130	87%	N
	NS-TA-OMORDAX-W-3-9	Ecological Risk	18	219.61	208.51	M	132	142	125	88%	N
	NS-TA-OMORDAX-W-3-10	Ecological Risk	11	206.13	200.50	M	149	160	141	88%	N
	NS-TA-OMORDAX-W-3-11	Ecological Risk	21	206.35	202.44	M	123	130	117	90%	N
	NS-TA-OMORDAX-W-3-12	Ecological Risk	19	195.76	187.37	F	129	136	121	89%	N
	NS-TA-OMORDAX-W-3-13	Ecological Risk	16	210.09	199.85	M	136	142	127	89%	N
	NS-TA-OMORDAX-W-3-14	Ecological Risk	20	209.13	204.34	M	126	138	118	86%	N
	NS-TA-OMORDAX-W-3-15	Ecological Risk	18	209.72	204.29	F	133	146	125	86%	N
	NS-TA-OMORDAX-W-3-16	Ecological Risk	16	207.38	196.41	M	133	141	127	90%	N
	NS-TA-OMORDAX-W-3-DUP2	Ecological Risk	14	204.30	197.84	F	141	162	131	81%	N
	NS-TA-OMORDAX-W-3-MS/MSD2	Ecological Risk	15	193.35	186.98	M	135	142	128	90%	N

1 Availability of female smelt was limited during sample collection resulting in increased size variability

2 One smelt had fungus growing along caudal peduncle region

Table 7
Ashland/NSP Lakefront Superfund Site
Ecological Risk Assessment
Rainbow Smelt (*Osmerus mordax*)
Anaytical Data - SIMPAH
Draft - Unvalidated data

Parameter (µg/kg)	Reference Area 1				Reference Area 2				Area of Concern							
	W-1-1	W-1-2	W-1-3	W-1-8	W-2-1	W-2-2	W-2-3	W-2-4	W-3-9	W-3-10	W-3-11	W-3-12	W-3-13	W-3-14	W-3-15	W-3-16
Naphthalene	2.2	3.3	3.6	2.0	2.0	U	2.0	2.4	280.0	100.0	100.0	130.0	120.0	160.0	76.0	140.0
2-Methylnaphthalene	2.0	3.3	3.9	2.0	U	2.0	U	2.3	160.0	53.0	60.0	78.0	75.0	100.0	43.0	80.0
1-Methylnaphthalene	2.3	6.3	5.9	2.0	2.0	U	2.4	2.3	260.0	95.0	100.0	130.0	130.0	170.0	72.0	130.0
Biphenyl	2.0	U	2.0	U	2.0	U	2.0	U	23.0	7.8	9.2	10.0	11.0	15.0	6.0	11.0
2,6 Dimethylnaphthalene	2.0	U	2.9	2.7	2.0	U	2.0	U	82.0	27.0	33.0	40.0	40.0	53.0	22.0	41.0
Acenaphthylene	2.0	U	2.0	U	2.0	U	2.0	U	10.0	2.1	2.4	J	3.4	J	4.2	4.0
Acenaphthene	4.6	7.4	8.3	2.2	3.7	5.8	4.3	69.0	220.0	84.0	93.0	120.0	120.0	150.0	67.0	120.0
2,3,5 Trimethylnaphthalene	2.0	U	2.0	U	2.0	U	2.0	U	31.0	8.5	7.9	13.0	13.0	16.0	8.1	13.0
Fluorene	3.7	4.6	5.7	2.0	U	2.4	4.7	3.5	72.0	26.0	30.0	36.0	38.0	48.0	21.0	37.0
Dibenzothiophene	2.0	U	2.3	2.0	U	2.0	U	2.0	14.0	4.1	4.9	6.0	5.6	7.5	3.6	5.9
Phenanthrene	12.0	10.0	12.0	3.8	12.0	14.0	14.0	35.0	130.0	40.0	42.0	50.0	48.0	66.0	29.0	49.0
Anthracene	2.0	U	2.0	U	2.0	U	2.0	U	43.0	7.4	10.0	14.0	14.0	15.0	7.1	12.0
1-Methylphenanthrene	2.0	U	2.0	U	2.0	U	2.0	U	61.0	6.6	5.0	9.1	9.2	10.0	5.1	8.0
Fluoranthene	3.6	3.2	3.6	3.6	U	4.2	5.0	5.3	97.0	12.0	11.0	18.0	18.0	20.0	14.0	17.0
Pyrene	2.0	U	2.0	U	2.0	U	2.0	U	130.0	11.0	12.0	22.0	20.0	21.0	19.0	19.0
Benzo (a) anthracene	2.0	U	2.0	U	2.0	U	2.0	U	59.0	2.0	U	J	4.6	6.8	2.1	J 5.9
Chrysene	2.0	U	2.0	U	2.0	U	2.0	U	47.0	2.0	U	2.6	J 4.8	5.7	2.8	J 5.3
Benzo (b) fluoranthene	2.0	U	2.0	U	2.0	U	2.0	U	42.0	2.0	U	2.7	U 3.5	J 7.2	4.0	4.4
Benzo (k) fluoranthene	2.0	U	2.0	U	2.0	U	2.0	U	28.0	2.0	U	2.7	U 3.0	J 5.7	4.0	U 3.6
Benzo (e) pyrene	2.0	U	2.0	U	2.0	U	2.0	U	29.0	2.0	U	2.7	U 3.0	J 5.0	4.0	U 3.7
Benzo (a) pyrene	2.0	U	2.0	U	2.0	U	2.0	U	53.0	2.0	U	2.7	U 5.3	9.5	2.1	J 6.5
Perylene	2.0	U	2.0	U	2.0	U	2.0	U	8.6	2.0	U	2.7	U 4.0	4.0	U 2.0	U 3.3
Indeno (1,2,3-cd) pyrene	2.0	U	2.0	U	2.0	U	2.0	U	17.0	2.0	U	2.7	U 4.0	4.0	U 2.2	U 3.3
Dibenzo (a,h) anthracene	2.0	U	2.0	U	2.0	U	2.0	U	6.1	J	2.0	U	2.7	U 4.0	4.0	U 2.0
Benzo (g,h,i) perylene	2.0	U	2.0	U	2.0	U	2.0	U	22.0	2.0	U	2.7	U 4.0	3.6	J 4.0	U 2.3
Total PAHs																

U - Analyte was analyzed for but not detected above the reporting limit

J - Estimated Value

All units are ug/kg

Table 8
Ashland/NSP Lakefront Superfund Site
Human Health Risk Assessment
Rainbow Smelt (*Osmerus mordax*)
Anaytical Data - SIMPAH
Draft - Unvalidated data

Parameter (µg/kg)	Reference Area 1				Reference Area 2				Area of Concern									
	F-1-4	F-1-5	F-1-6	F-1-7	F-2-5	F-2-6	F-2-7	F-2-8	F-3-1	F-3-2	F-3-3	F-3-4	F-3-5	F-3-6	F-3-7	F-3-8		
Naphthalene	2.0	U	3.5	2.2	2.0	U	2.1	2.1	12.0	2.1	130.0	77.0	86.0	130.0	180.0	43.0	34.0	140.0
2-Methylnaphthalene	2.0	U	2.7	2.0	U	2.0	U	2.0	U	2.7	73.0	47.0	53.0	78.0	110.0	26.0	19.0	89.0
1-Methylnaphthalene	2.0	U	4.2	2.0	U	2.0	U	2.0	U	2.6	120.0	82.0	90.0	130.0	170.0	49.0	36.0	140.0
Biphenyl	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	10.0	7.3	8.3	11.0	16.0	4.4	3.1	13.0
2,6 Dimethylnaphthalene	2.0	U	2.2	2.0	U	2.0	U	2.0	U	2.0	35.0	24.0	26.0	36.0	54.0	14.0	9.9	47.0
Acnaphthylene	2.0	U	2.0	U	2.0	U	2.0	U	4.0	2.8	2.0	U	2.0	J	2.0	U	2.0	U
Acenaphthene	2.0	U	5.9	2.0	U	2.1	U	2.0	U	3.7	3.8	3.1	110.0	78.0	85.0	110.0	150.0	50.0
2,3,5 Trimethylnaphthalene	2.0	U	2.0	U	2.0	U	2.0	U	3.2	2.0	U	2.0	U	9.8	7.3	8.4	10.0	14.0
Flourene	2.0	U	3.2	2.0	U	2.0	U	2.0	U	3.5	2.5	2.2	32.0	24.0	24.0	24.0	45.0	16.0
Dibenzothiophene	2.0	U	2.0	U	2.0	U	2.0	U	11.0	2.0	U	2.0	U	4.9	3.9	4.2	5.1	8.2
Phenanthrene	4.2	8.6	5.2	4.4	U	2.0	U	12.0	8.6	8.5	40.0	30.0	33.0	43.0	60.0	21.0	14.0	48.0
Anthracene	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	15.0	8.3	9.0	15.0	21.0	4.8
1-Methylphenanthrene	2.0	U	2.0	U	2.0	U	2.0	U	3.7	2.0	U	2.0	U	5.4	3.3	4.3	6.0	9.6
Fluoranthene	2.0	U	2.8	2.8	U	2.0	U	2.1	9.7	3.2	13.0	8.9	10.0	13.0	20.0	6.1	4.3	15.0
Pyrene	2.0	U	2.0	U	2.0	U	2.0	U	12.0	2.0	U	2.0	U	4.0	U	9.2	12.0	14.0
Benzo (a) anthracene	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	10.0	2.0	U	2.0	U	2.0	U	2.0
Chrysene	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	8.7	2.0	U	2.0	U	4.0	U	5.7
Benzo (b) fluoranthene	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	8.5	2.0	U	2.0	U	4.0	U	5.7
Benzo (k) fluoranthene	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	10.0	2.0	U	2.0	U	4.0	U	5.7
Benzo (e) pyrene	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	8.1	2.0	U	2.0	U	4.0	U	5.7
Benzo (a) pyrene	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	14.0	2.0	U	2.0	U	4.0	U	5.7
Perylene	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.5	2.0	U	2.0	U	4.0	U	5.7
Indeno (1,2,3-cd) pyrene	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	5.5	2.0	U	2.0	U	4.0	U	5.7
Dibenzo (a,h) anthracene	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.3	2.0	U	2.0	U	4.0	U	5.7
Benzo (g,h,i) perylene	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	6.6	2.0	U	2.0	U	4.0	U	5.7

U - Analyte was analyzed for but not detected above the reporting limit

J - Estimated Value

All units are ug/kg

Table 9
Ashland/NSP Lakefront Superfund Site
Human Health Risk Assessment
Rainbow Smelt (*Osmerus mordax*)
Anaytical Data - SIMPAH
Draft - Unvalidated Data

Mean Values PAHs	Reference Area 1 Fillet	Reference Area 2 Fillet	Area of Concern Fillet
Naphthalene	2.4	4.6	102.5
2-Methylnaphthalene	2.2	2.2	61.9
1-Methylnaphthalene	2.6	2.2	102.1
Biphenyl	2.0	2.0	9.1
2,6 Dimethylnaphthalene	2.1	2.0	30.7
Acnaphthylene	2.0	2.7	2.5
Acenaphthene	3.0	3.2	93.9
2,3,5 Trimethylnaphthalene	2.0	2.3	8.9
Flourene	2.3	2.6	26.9
Dibenzothiophene	2.0	4.3	4.7
Phenanthrene	5.6	7.8	36.1
Anthracene	2.0	2.0	11.8
1-Methylphenanthrene	2.0	2.4	5.1
Flouranthene	2.6	4.6	11.3
Pyrene	2.0	4.5	11.0
Benzo (a) anthracene	2.0	4.0	3.2
Chrysene	2.0	3.7	3.2
Benzo (b) fluoranthene	2.0	3.6	3.2
Benzo (k) fluoranthene	2.0	4.0	3.2
Benzo (e) pyrene	2.0	3.5	3.2
Benzo (a) pyrene	2.0	5.0	3.2
Perylene	2.0	2.1	3.2
Indeno (1,2,3-cd) pyrene	2.0	2.9	3.2
Dibenzo (a,h) anthracene	2.0	2.1	3.2
Benzo (g,h,i) perylene	2.0	3.2	3.2

All units are ug/kg

Table 10
Ashland/NSP Lakefront Superfund Site
Rainbow Smelt (*Osmerus mordax*)
Anaytical Data - % Solids & % Lipids
Draft - Unvalidated Data

			Sex of Fish in Sample	Percent Solids Content	Percent Lipid Content
Ecological Risk Assessment	Sample	Location	Sample		
	W-1-1	Reference 1	M	22.9	3.1
Human Health Risk Assessment	W-1-2	Reference 1	M	23.2	3.5
	W-1-3	Reference 1	M	23.2	3.5
	W-1-8	Reference 1	F	24.5	3.3
	W-2-1	Reference 2	M	22.5	2.4
	W-2-2	Reference 2	F	22.1	3.0
	W-2-3	Reference 2	M	22.5	2.5
	W-2-4	Reference 2	M	22.6	3.2
	W-3-9	AC	M	23.4	3.3
	W-3-10	AC	M	22.0	3.6
	W-3-11	AC	M	22.3	3.2
	W-3-12	AC	F	21.6	2.8
	W-3-13	AC	M	21.8	2.7
	W-3-14	AC	M	21.2	2.9
	W-3-15	AC	F	22.8	3.3
	W-3-16	AC	M	22.7	3.1
	F-1-4	Reference 1	M	20.6	1.5
	F-1-5	Reference 1	M	22.3	1.6
	F-1-6	Reference 1	F	20.5	1.7
	F-1-7	Reference 1	M	21.7	1.7
	F-2-5	Reference 2	M	23.1	1.8
	F-2-6	Reference 2	M	22.4	1.7
	F-2-7	Reference 2	F	20.9	1.7
	F-2-8	Reference 2	M	20.3	1.6
	F-3-1	AC	M	22.8	2.1
	F-3-2	AC	M	21.1	1.5
	F-3-3	AC	M	21.2	1.7
	F-3-4	AC	M	20.0	1.8
	F-3-5	AC	M	22.3	1.9
	F-3-6	AC	M	20.4	1.6
	F-3-7	AC	F	22.2	1.4
	F-3-8	AC	M	21.6	1.8

Figure 1.
Ashland/NSP Lakefront Superfund Site
Total PAHs
Ecological Risk Assesment

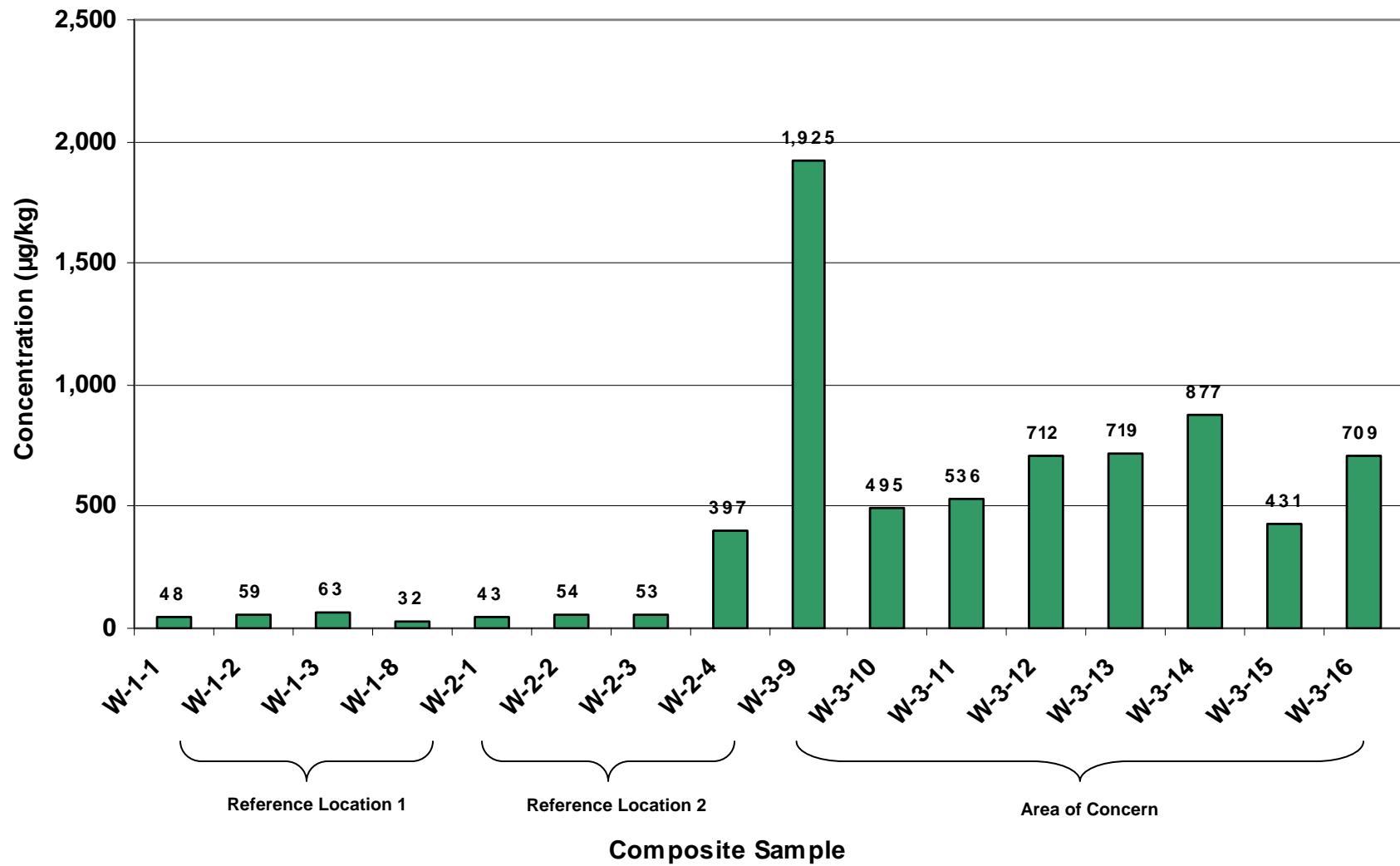
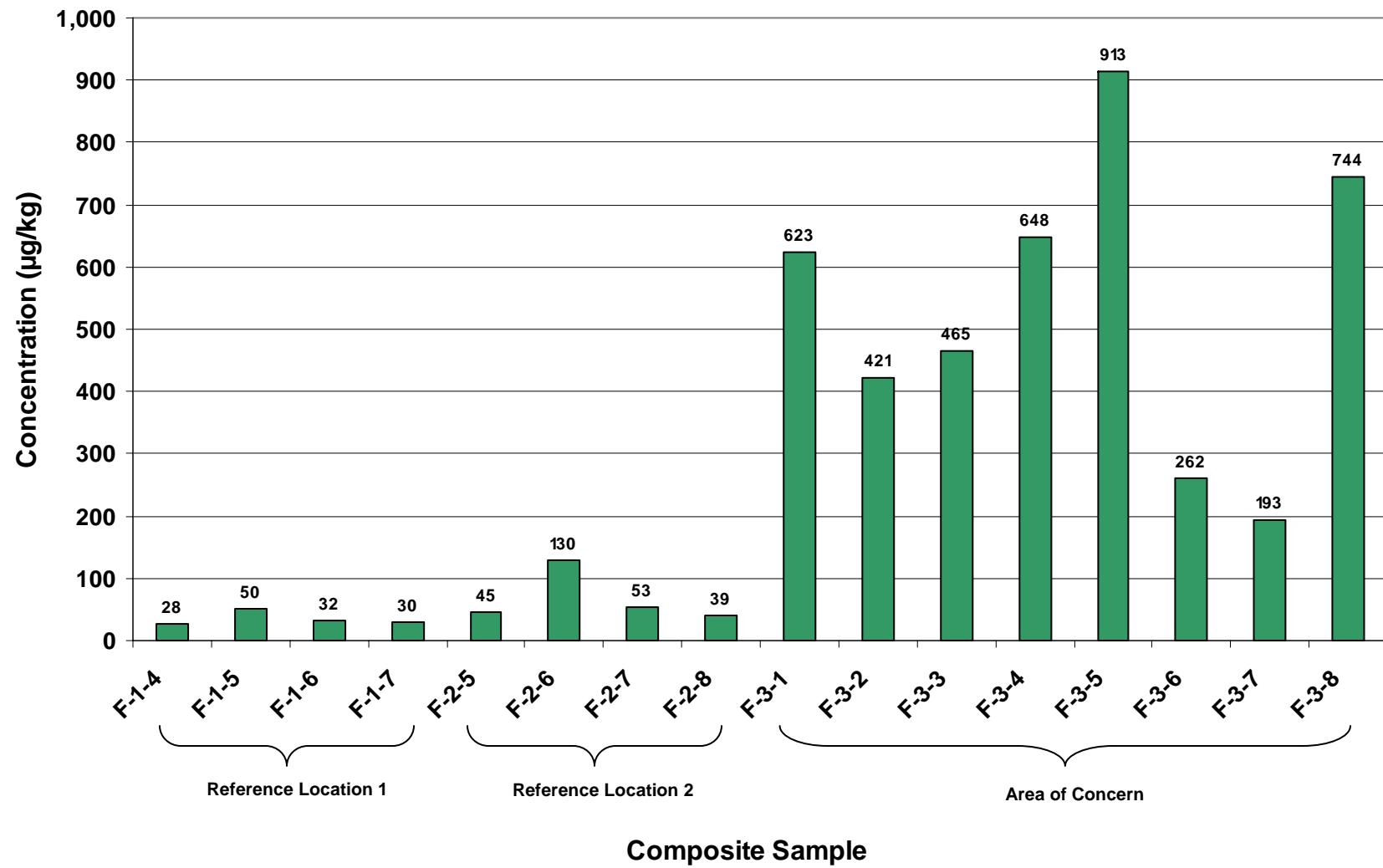


Figure 2.
Ashland/NSP Lakefront Superfund Site
Total PAHs
Human Health Risk Assessment



Appendix A

June System Monitoring Laboratory Reporting Forms

NORTHERN LAKE SERVICE, INC.
Analytical Laboratory and Environmental Services
400 North Lake Avenue - Crandon, WI 54520
Ph: (715)-478-2777 Fax: (715)-478-3060

ANALYTICAL REPORT

WDNR Laboratory ID No. 721026460
WDATCP Laboratory Certification No. 105-330
EPA Laboratory ID No. WI00034

Printed: 07/13/04 Code: S Page 1 of 1
NLS Project: 82041
NLS Customer: 91206
Fax: 414 831 4101 Phone: 414 831 4100

Client: URS Corporation (Milwaukee)
Attn: Ben Nelson
10200 West Innovation Drive #500
Milwaukee, WI 53226 4827

Project: Xcel Ashland - 2568836

Effluent NLS ID: 341820

Ref. Line 1 COC 69738 Effluent Matrix: GW
Collected: 06/14/04 09:45 Received: 06/15/04

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Oil and Grease, water (hexane)	ND	mg/L	1	1.1	3.6	06/22/04	EPA 1664	721026460
VOCs (water) by EPA 8260	see attached					06/16/04	SW846 8260	721026460
PAHs (water) by EPA 8310	see attached					06/21/04	SW846 8310	721026460
Organics Extraction (Water) for PAHs	yes					06/16/04	SW846 3510	721026460

Pre Carbon NLS ID: 341821

Ref. Line 2 COC 69738 Pre Carbon Matrix: GW
Collected: 06/14/04 09:50 Received: 06/15/04

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
VOCs (water) by EPA 8260	see attached					06/16/04	SW846 8260	721026460

Influent NLS ID: 341822

Ref. Line 3 COC 69738 Influent Matrix: GW
Collected: 06/14/04 09:55 Received: 06/15/04

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
VOCs (water) by EPA 8260	see attached					06/16/04	SW846 8260	721026460

Trip Blank NLS ID: 341823

Ref. Line COC 69738 Trip Blank Matrix: TB
Collected: 06/14/04 00:00 Received: 06/15/04

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
VOCs (water) by EPA 8260	see attached					06/16/04	SW846 8260	721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and/or LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dilution.

LOD = Limit of Detection

LOQ = Limit of Quantitation

ND = Not Detected

1000 ug/L = 1 mg/L

DWB = Dry Weight Basis

NA = Not Applicable

%DWB = (mg/kg DWB) / 10000

Authorized by:

R. T. Krueger
President

MCL = Maximum Contaminant Levels for Drinking Water Samples

Reviewed by: _____

ANALYTICAL RESULTS: Polynuclear Aromatic Hydrocarbons by EPA 8310 (w)

Page 1 of 1

Customer: URS Corporation (Milwaukee) NLS Project: 82041

Project Description: Xcel Ashland - 2568836

Project Title:

Template: 04PAHW Printed: 07/13/2004 12:53

Sample: 341820 Effluent

Collected: 06/14/04

Analyzed: 06/21/04 -

ANALYTE NAME	RESULT	UNITS	DIL	LOD	LOQ
Acenaphthene	ND	ug/L	1	0.016	0.054
Acenaphthylene	ND	ug/L	1	0.050	0.17
Anthracene	ND	ug/L	1	0.012	0.039
Benzo (a) anthracene	ND	ug/L	1	0.016	0.053
Benzo (a) pyrene	ND	ug/L	1	0.011	0.035
Benzo (b) fluoranthene	ND	ug/L	1	0.018	0.061
Benzo (g,h,i) perylene	ND	ug/L	1	0.011	0.038
Benzo (k) fluoranthene	ND	ug/L	1	0.012	0.041
Chrysene	ND	ug/L	1	0.021	0.069
Dibenzo (a,h) anthracene	ND	ug/L	1	0.016	0.054
Fluoranthene	ND	ug/L	1	0.010	0.035
Fluorene	[0.019]	ug/L	1	0.015	0.051
Indeno (1,2,3-cd) pyrene	ND	ug/L	1	0.037	0.12
Methyl-1-Naphthalene	0.043	ug/L	1	0.012	0.041
Methyl-2-Naphthalene	0.12	ug/L	1	0.018	0.061
Naphthalene	0.12	ug/L	1	0.014	0.047
Phenanthren	[0.036]	ug/L	1	0.017	0.056
Pyrene	ND	ug/L	1	0.011	0.035
P-Terphenyl (SURR**)	102%				

** Surrogates are used to evaluate a method's Quality Control.

ANALYTICAL RESULTS: VOC's by EPA 8260 - Water - (Saturn 2000)

Page 1 of 8

Customer: URS Corporation (Milwaukee) NLS Project: 82041

Project Description: Xcel Ashland - 2568836

Project Title:

Template: SATW Printed: 07/13/2004 12:52

Sample: 341820	Effluent	Collected: 06/14/04	Analyzed: 06/16/04 -			
ANALYTE NAME		RESULT	UNITS	DIL	LOD	LOQ
Benzene		ND	ug/L	1	0.29	0.97
Bromobenzene		ND	ug/L	1	0.10	0.37
Bromoform		ND	ug/L	1	0.27	0.89
Bromochloromethane		ND	ug/L	1	0.32	1.1
Bromodichloromethane		ND	ug/L	1	0.28	0.92
Bromoform		ND	ug/L	1	0.39	1.3
Bromomethane		ND	ug/L	1	0.31	1.0
n-Butylbenzene		ND	ug/L	1	0.33	1.1
sec-Butylbenzene		ND	ug/L	1	0.31	1.0
tert-Butylbenzene		ND	ug/L	1	0.30	0.98
Carbon Tetrachloride		ND	ug/L	1	0.21	0.70
Chlorobenzene		ND	ug/L	1	1.7	5.7
Chloroethane		ND	ug/L	1	0.30	0.99
Chloroform		ND	ug/L	1	0.24	0.75
Chloromethane		ND	ug/L	1	0.39	1.3
2-Chlorotoluene		ND	ug/L	1	0.37	1.2
4-Chlorotoluene		ND	ug/L	1	0.29	0.97
1,2-Dibromo-3-Chloropropane		ND	ug/L	1	0.33	1.1
1,2-Dibromoethane		ND	ug/L	1	0.30	1.0
Dibromomethane		ND	ug/L	1	0.32	1.1
1,2-Dichlorobenzene		ND	ug/L	1	0.28	0.93
1,3-Dichlorobenzene		ND	ug/L	1	0.24	0.79
1,4-Dichlorobenzene		ND	ug/L	1	0.23	0.78
Dichlorodifluoromethane		ND	ug/L	1	0.18	0.63
1,1-Dichloroethane		ND	ug/L	1	0.30	0.99
1,2-Dichloroethane		ND	ug/L	1	0.34	1.1
1,1-Dichloroethene		ND	ug/L	1	0.41	1.4
cis-1,2-Dichloroethene		ND	ug/L	1	0.40	1.3
trans-1,2-Dichloroethene		ND	ug/L	1	0.35	1.2
1,2-Dichloropropane		ND	ug/L	1	0.35	1.2
1,3-Dichloropropane		ND	ug/L	1	0.34	1.1
2,2-Dichloropropane		ND	ug/L	1	0.44	1.5
1,1-Dichloropropene		ND	ug/L	1	0.32	1.1
cis-1,3-Dichloropropene		ND	ug/L	1	0.27	0.89
trans-1,3-Dichloropropene		ND	ug/L	1	0.32	1.1
Ethylbenzene		ND	ug/L	1	0.26	0.87
Hexachlorobutadiene		ND	ug/L	1	0.41	1.4
Isopropylbenzene		ND	ug/L	1	0.36	1.2
p-Isopropyltoluene		ND	ug/L	1	0.30	1.0
Methylene chloride		ND	ug/L	1	0.43	1.4
Naphthalene		ND	ug/L	1	0.39	1.3
n-Propylbenzene		ND	ug/L	1	0.34	1.1
ortho-Xylene		ND	ug/L	1	0.27	0.89
Styrene		ND	ug/L	1	0.32	1.1
1,1,1,2-Tetrachloroethane		ND	ug/L	1	0.28	0.94
1,1,2,2-Tetrachloroethane		ND	ug/L	1	0.33	1.1
Tetrachloroethene		ND	ug/L	1	0.31	1.0
Toluene		ND	ug/L	1	0.34	1.1
1,2,3-Trichlorobenzene		ND	ug/L	1	0.36	1.2

ANALYTICAL RESULTS: VOC's by EPA 8260 - Water - (Saturn 2000)

Page 2 of 8

Customer: URS Corporation (Milwaukee) NLS Project: 82041

Project Description: Xcel Ashland - 2568836

Project Title: Template: SATW Printed: 07/13/2004 12:52

Sample: 341820 Effluent

Collected: 06/14/04

Analyzed: 06/16/04 -

ANALYTE NAME	RESULT	UNITS	DIL	LOD	LOQ
1,2,4-Trichlorobenzene	ND	ug/L	1	0.37	1.2
1,1,1-Trichloroethane	ND	ug/L	1	0.27	0.88
1,1,2-Trichloroethane	ND	ug/L	1	0.42	1.4
Trichloroethene	ND	ug/L	1	0.25	0.82
Trichlorofluoromethane	ND	ug/L	1	0.38	1.3
1,2,3-Trichloropropane	ND	ug/L	1	0.44	1.5
1,2,4-Trimethylbenzene	ND	ug/L	1	0.31	1.0
1,3,5-Trimethylbenzene	ND	ug/L	1	0.39	1.3
Vinyl chloride	ND	ug/L	1	0.11	0.38
meta,para-Xylene	ND	ug/L	1	0.62	2.1
MTBE	ND	ug/L	1	0.31	1.0
Isopropyl Ether	ND	ug/L	1	0.35	1.2
Dibromofluoromethane (SURR**)	101%				
Toluene-d8 (SURR**)	99%				
1-Bromo-4-Fluorobenzene (SURR**)	99%				

Check standard recovery was outside QC limits for Bromomethane at 79%.

ANALYTICAL RESULTS: VOC's by EPA 8260 - Water - (Saturn 2000)

Page 3 of 8

Customer: URS Corporation (Milwaukee) NLS Project: 82041

Project Description: Xcel Ashland - 2568836

Project Title:

Template: SATW Printed: 07/13/2004 12:52

Sample: 341821 Pre Carbon

Collected: 06/14/04

Analyzed: 06/16/04 -

ANALYTE NAME	RESULT	UNITS	DIL	LOD	LOQ
Benzene	[47]	ug/L	80	23	77
Bromobenzene	ND	ug/L	80	8.2	29
Bromochloromethane	ND	ug/L	80	21	71
Bromodichloromethane	ND	ug/L	80	26	85
Bromoform	ND	ug/L	80	22	74
Bromomethane	ND	ug/L	80	31	100
n-Butylbenzene	ND	ug/L	80	25	84
sec-Butylbenzene	ND	ug/L	80	26	88
tert-Butylbenzene	ND	ug/L	80	25	83
Carbon Tetrachloride	ND	ug/L	80	24	79
Chlorobenzene	ND	ug/L	80	17	56
Chloroethane	ND	ug/L	80	140	450
Chloroform	ND	ug/L	80	24	79
Chloromethane	ND	ug/L	80	19	60
2-Chlorotoluene	ND	ug/L	80	31	100
4-Chlorotoluene	ND	ug/L	80	29	98
Dibromochloromethane	ND	ug/L	80	23	78
1,2-Dibromo-3-Chloropropane	ND	ug/L	80	26	88
1,2-Dibromoethane	ND	ug/L	80	24	80
Dibromomethane	ND	ug/L	80	25	85
1,2-Dichlorobenzene	ND	ug/L	80	22	74
1,3-Dichlorobenzene	ND	ug/L	80	19	63
1,4-Dichlorobenzene	ND	ug/L	80	19	62
Dichlorodifluoromethane	ND	ug/L	80	14	50
1,1-Dichloroethane	ND	ug/L	80	24	79
1,2-Dichloroethane	ND	ug/L	80	27	91
1,1-Dichloroethene	ND	ug/L	80	33	110
cis-1,2-Dichloroethene	ND	ug/L	80	32	110
trans-1,2-Dichloroethene	ND	ug/L	80	28	92
1,2-Dichloropropane	ND	ug/L	80	28	93
1,3-Dichloropropane	ND	ug/L	80	27	89
2,2-Dichloropropane	ND	ug/L	80	35	120
1,1-Dichloropropene	ND	ug/L	80	26	86
cis-1,3-Dichloropropene	ND	ug/L	80	21	71
trans-1,3-Dichloropropene	ND	ug/L	80	26	86
Ethylbenzene	ND	ug/L	80	21	69
Hexachlorobutadiene	ND	ug/L	80	33	110
Isopropylbenzene	ND	ug/L	80	29	97
p-Isopropyltoluene	ND	ug/L	80	24	81
Methylene chloride	ND	ug/L	80	34	110
Naphthalene	550	ug/L	80	31	100
n-Propylbenzene	ND	ug/L	80	27	90
ortho-Xylene	ND	ug/L	80	21	71
Styrene	ND	ug/L	80	25	85
1,1,1,2-Tetrachloroethane	ND	ug/L	80	22	75
1,1,2,2-Tetrachloroethane	ND	ug/L	80	26	88
Tetrachloroethene	ND	ug/L	80	24	82
Toluene	[30]	ug/L	80	27	90
1,2,3-Trichlorobenzene	ND	ug/L	80	29	97

ANALYTICAL RESULTS: VOC's by EPA 8260 - Water - (Saturn 2000)

Page 4 of 8

Customer: URS Corporation (Milwaukee) NLS Project: 82041

Project Description: Xcel Ashland - 2568836

Project Title: Template: SATW Printed: 07/13/2004 12:52

Sample: 341821 Pre Carbon

Collected: 06/14/04

Analyzed: 06/16/04 -

ANALYTE NAME	RESULT	UNITS	DIL	LOD	LOQ
1,2,4-Trichlorobenzene	ND	ug/L	80	29	97
1,1,1-Trichloroethane	ND	ug/L	80	21	71
1,1,2-Trichloroethane	ND	ug/L	80	33	110
Trichloroethene	ND	ug/L	80	20	66
Trichlorofluoromethane	ND	ug/L	80	31	100
1,2,3-Trichloropropane	ND	ug/L	80	35	120
1,2,4-Trimethylbenzene	ND	ug/L	80	24	81
1,3,5-Trimethylbenzene	ND	ug/L	80	31	100
Vinyl chloride	ND	ug/L	80	8.5	30
meta,para-Xylene	ND	ug/L	80	49	160
MTBE	ND	ug/L	80	24	81
Isopropyl Ether	ND	ug/L	80	28	94
Dibromofluoromethane (SURR**)	111%				
Toluene-d8 (SURR**)	107%				
1-Bromo-4-Fluorobenzene (SURR**)	109%				

Check standard recovery was outside QC limits for Bromomethane at 79%.

ANALYTICAL RESULTS: VOC's by EPA 8260 - Water - (Saturn 2000)

Page 5 of 8

Customer: URS Corporation (Milwaukee) NLS Project: 82041

Project Description: Xcel Ashland - 2568836

Project Title:

Template: SATW Printed: 07/13/2004 12:52

Sample: 341822 Influent	Collected: 06/14/04	Analyzed: 06/16/04 -			
ANALYTE NAME	RESULT	UNITS	DIL	LOD	LOQ
Benzene	4800	ug/L	1000	290	970
Bromobenzene	ND	ug/L	1000	100	370
Bromoform	ND	ug/L	1000	270	890
Bromomethane	ND	ug/L	1000	320	1100
n-Butylbenzene	ND	ug/L	1000	280	920
sec-Butylbenzene	ND	ug/L	1000	390	1300
tert-Butylbenzene	ND	ug/L	1000	310	1000
Carbon Tetrachloride	ND	ug/L	1000	300	980
Chlorobenzene	ND	ug/L	1000	210	700
Chloroethane	ND	ug/L	1000	1700	5700
Chloroform	ND	ug/L	1000	300	990
Chloromethane	ND	ug/L	1000	240	750
2-Chlorotoluene	ND	ug/L	1000	390	1300
4-Chlorotoluene	ND	ug/L	1000	370	1200
Dibromochloromethane	ND	ug/L	1000	290	970
1,2-Dibromo-3-Chloropropane	ND	ug/L	1000	330	1100
1,2-Dibromoethane	ND	ug/L	1000	300	1000
Dibromomethane	ND	ug/L	1000	320	1100
1,2-Dichlorobenzene	ND	ug/L	1000	280	930
1,3-Dichlorobenzene	ND	ug/L	1000	240	790
1,4-Dichlorobenzene	ND	ug/L	1000	230	780
Dichlorodifluoromethane	ND	ug/L	1000	180	630
1,1-Dichloroethane	ND	ug/L	1000	300	990
1,2-Dichloroethane	ND	ug/L	1000	340	1100
1,1-Dichloroethene	ND	ug/L	1000	410	1400
cis-1,2-Dichloroethene	ND	ug/L	1000	400	1300
trans-1,2-Dichloroethene	ND	ug/L	1000	350	1200
1,2-Dichloropropane	ND	ug/L	1000	350	1200
1,3-Dichloropropane	ND	ug/L	1000	340	1100
2,2-Dichloropropane	ND	ug/L	1000	440	1500
1,1-Dichloropropene	ND	ug/L	1000	320	1100
cis-1,3-Dichloropropene	ND	ug/L	1000	270	890
trans-1,3-Dichloropropene	ND	ug/L	1000	320	1100
Ethylbenzene	ND	ug/L	1000	260	870
Hexachlorobutadiene	ND	ug/L	1000	410	1400
Isopropylbenzene	ND	ug/L	1000	360	1200
p-Isopropyltoluene	ND	ug/L	1000	300	1000
Methylene chloride	ND	ug/L	1000	430	1400
Naphthalene	13000	ug/L	1000	390	1300
n-Propylbenzene	ND	ug/L	1000	340	1100
ortho-Xylene	[440]	ug/L	1000	270	890
Styrene	1300	ug/L	1000	320	1100
1,1,1,2-Tetrachloroethane	ND	ug/L	1000	280	940
1,1,2,2-Tetrachloroethane	ND	ug/L	1000	330	1100
Tetrachloroethene	ND	ug/L	1000	310	1000
Toluene	3400	ug/L	1000	340	1100
1,2,3-Trichlorobenzene	ND	ug/L	1000	360	1200

ANALYTICAL RESULTS: VOC's by EPA 8260 - Water - (Saturn 2000)

Page 6 of 8

Customer: URS Corporation (Milwaukee) NLS Project: 82041

Project Description: Xcel Ashland - 2568836

Project Title: Template: SATW Printed: 07/13/2004 12:52

Sample: 341822 Influent

Collected: 06/14/04

Analyzed: 06/16/04 -

ANALYTE NAME	RESULT	UNITS	DIL	LOD	LOQ
1,2,4-Trichlorobenzene	ND	ug/L	1000	370	1200
1,1,1-Trichloroethane	ND	ug/L	1000	270	880
1,1,2-Trichloroethane	ND	ug/L	1000	420	1400
Trichloroethene	ND	ug/L	1000	250	820
Trichlorofluoromethane	ND	ug/L	1000	380	1300
1,2,3-Trichloropropane	ND	ug/L	1000	440	1500
1,2,4-Trimethylbenzene	[380]	ug/L	1000	310	1000
1,3,5-Trimethylbenzene	ND	ug/L	1000	390	1300
Vinyl chloride	ND	ug/L	1000	110	380
meta,para-Xylene	[720]	ug/L	1000	620	2100
MTBE	ND	ug/L	1000	310	1000
Isopropyl Ether	ND	ug/L	1000	350	1200
Dibromofluoromethane (SURR**)	115%				
Toluene-d8 (SURR**)	112%				
1-Bromo-4-Fluorobenzene (SURR**)	104%				

Check standard recovery was outside QC limits for Bromomethane at 79%.

ANALYTICAL RESULTS: VOC's by EPA 8260 - Water - (Saturn 2000)

Page 7 of 8

Customer: URS Corporation (Milwaukee) NLS Project: 82041

Project Description: Xcel Ashland - 2568836

Project Title:

Template: SATW Printed: 07/13/2004 12:52

Sample: 341823 Trip Blank	Collected: 06/14/04	Analyzed: 06/16/04 -			
ANALYTE NAME	RESULT	UNITS	DIL	LOD	LOQ
Benzene	ND	ug/L	1	0.29	0.97
Bromobenzene	ND	ug/L	1	0.10	0.37
Bromochloromethane	ND	ug/L	1	0.27	0.89
Bromodichloromethane	ND	ug/L	1	0.32	1.1
Bromoform	ND	ug/L	1	0.28	0.92
Bromomethane	ND	ug/L	1	0.39	1.3
n-Butylbenzene	ND	ug/L	1	0.31	1.0
sec-Butylbenzene	ND	ug/L	1	0.33	1.1
tert-Butylbenzene	ND	ug/L	1	0.31	1.0
Carbon Tetrachloride	ND	ug/L	1	0.30	0.98
Chlorobenzene	ND	ug/L	1	0.21	0.70
Chloroethane	ND	ug/L	1	1.7	5.7
Chloroform	ND	ug/L	1	0.30	0.99
Chloromethane	ND	ug/L	1	0.24	0.75
2-Chlorotoluene	ND	ug/L	1	0.39	1.3
4-Chlorotoluene	ND	ug/L	1	0.37	1.2
Dibromochloromethane	ND	ug/L	1	0.29	0.97
1,2-Dibromo-3-Chloropropane	ND	ug/L	1	0.33	1.1
1,2-Dibromoethane	ND	ug/L	1	0.30	1.0
Dibromomethane	ND	ug/L	1	0.32	1.1
1,2-Dichlorobenzene	ND	ug/L	1	0.28	0.93
1,3-Dichlorobenzene	ND	ug/L	1	0.24	0.79
1,4-Dichlorobenzene	ND	ug/L	1	0.23	0.78
Dichlorodifluoromethane	ND	ug/L	1	0.18	0.63
1,1-Dichloroethane	ND	ug/L	1	0.30	0.99
1,2-Dichloroethane	ND	ug/L	1	0.34	1.1
1,1-Dichloroethene	ND	ug/L	1	0.41	1.4
cis-1,2-Dichloroethene	ND	ug/L	1	0.40	1.3
trans-1,2-Dichloroethene	ND	ug/L	1	0.35	1.2
1,2-Dichloropropane	ND	ug/L	1	0.35	1.2
1,3-Dichloropropane	ND	ug/L	1	0.34	1.1
2,2-Dichloropropane	ND	ug/L	1	0.44	1.5
1,1-Dichloropropene	ND	ug/L	1	0.32	1.1
cis-1,3-Dichloropropene	ND	ug/L	1	0.27	0.89
trans-1,3-Dichloropropene	ND	ug/L	1	0.32	1.1
Ethylbenzene	ND	ug/L	1	0.26	0.87
Hexachlorobutadiene	ND	ug/L	1	0.41	1.4
Isopropylbenzene	ND	ug/L	1	0.36	1.2
p-Isopropyltoluene	ND	ug/L	1	0.30	1.0
Methylene chloride	ND	ug/L	1	0.43	1.4
Naphthalene	ND	ug/L	1	0.39	1.3
n-Propylbenzene	ND	ug/L	1	0.34	1.1
ortho-Xylene	ND	ug/L	1	0.27	0.89
Styrene	ND	ug/L	1	0.32	1.1
1,1,1,2-Tetrachloroethane	ND	ug/L	1	0.28	0.94
1,1,2,2-Tetrachloroethane	ND	ug/L	1	0.33	1.1
Tetrachloroethene	ND	ug/L	1	0.31	1.0
Toluene	ND	ug/L	1	0.34	1.1
1,2,3-Trichlorobenzene	ND	ug/L	1	0.36	1.2

ANALYTICAL RESULTS: VOC's by EPA 8260 - Water - (Saturn 2000)

Page 8 of 8

Customer: URS Corporation (Milwaukee) NLS Project: 82041

Project Description: Xcel Ashland - 2568836

Project Title: Template: SATW Printed: 07/13/2004 12:52

Sample: 341823 Trip Blank	Collected: 06/14/04	Analyzed: 06/16/04 -			
ANALYTE NAME	RESULT	UNITS	DIL	LOD	LOQ
1,2,4-Trichlorobenzene	ND	ug/L	1	0.37	1.2
1,1,1-Trichloroethane	ND	ug/L	1	0.27	0.88
1,1,2-Trichloroethane	ND	ug/L	1	0.42	1.4
Trichloroethene	ND	ug/L	1	0.25	0.82
Trichlorofluoromethane	ND	ug/L	1	0.38	1.3
1,2,3-Trichloropropane	ND	ug/L	1	0.44	1.5
1,2,4-Trimethylbenzene	ND	ug/L	1	0.31	1.0
1,3,5-Trimethylbenzene	ND	ug/L	1	0.39	1.3
Vinyl chloride	ND	ug/L	1	0.11	0.38
meta,para-Xylene	ND	ug/L	1	0.62	2.1
MTBE	ND	ug/L	1	0.31	1.0
Isopropyl Ether	ND	ug/L	1	0.35	1.2
Dibromofluoromethane (SURR**)	113%				
Toluene-d8 (SURR**)	103%				
1-Bromo-4-Fluorobenzene (SURR**)	102%				

Check standard recovery was outside QC limits for Bromomethane at 79%.

** Surrogates are used to evaluate a method's Quality Control.

ANALYTICAL REPORT

Bert Cole
URS CORPORATION
54 Park Place
Suite 950
Appleton, WI 54914

07/09/2004

TestAmerica Job: 04.08552

Project Number: IH-Project #25688376
Project: IH-Xcel Energy - Ashland

Enclosed is the Analytical Reports for the following samples submitted to the Cedar Falls Division of TestAmerica Analytical Testing Corporation for analysis.

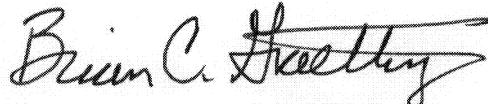
Sample Number	Sample Description	Date Taken	Date Received
807985	Air Effluent	06/24/2004	06/30/2004
807986	1st Stage Carbon	06/24/2004	06/30/2004
807987	Air Stripper	06/24/2004	06/30/2004

TestAmerica Analytical Testing Corporation AIHA Lab Accreditation Number 285

Laboratory Director - Michael K. McGee, CIH

TestAmerica Analytical Testing Corporation certifies that the analytical results contained herein apply only to the specific samples analyzed.

Reproduction of this analytical report is permitted only in its entirety.



Brian C. Graettinger
Project Manager

ANALYTICAL REPORT

Page 2 of 3

Bert Cole
URS CORPORATION
54 Park Place
Suite 950
Appleton, WI 54914

07/09/2004

Date Received: 06/30/2004

XCEL ENERGY-ASHLAND PROJECT #25688376
CC: DAVE TRAINOR NEWFIELDS CC: BEN NELSON MILWAUKEE, WI

Job Number: 04.08552

	Result	Units	Result	Date Taken	Date Analyzed	Analyst	Analysis Method	Quantitation Limit
807985 Air Effluent								
Air Volume	5.0	Liters	06/24/2004	07/09/2004	bcg			
Benzene (UST)	<0.020	mg	06/24/2004	07/08/2004	eee	NIOSH 1501	0.020	
Benzene	<4.00	mg/m ³	06/24/2004	07/09/2004	bcg	N1501		
Ethyl Benzene (UST)	<0.020	mg	06/24/2004	07/08/2004	eee	NIOSH 1501	0.020	
Ethylbenzene	<4.00	mg/m ³	06/24/2004	07/09/2004	bcg	N1501		
Hydrocarbons, Total (UST)	0.045	mg	06/24/2004	07/08/2004	eee	NIOSH 1550	0.030	
Hydrocarbons, Total	9.00	mg/m ³	06/24/2004	07/09/2004	bcg	N1550		
Toluene (UST)	<0.020	mg	06/24/2004	07/08/2004	eee	NIOSH 1501	0.020	
Toluene	<4.00	mg/m ³	06/24/2004	07/09/2004	bcg	N1501		
Xylenes, Total (UST)	<0.030	mg	06/24/2004	07/08/2004	eee	NIOSH 1501	0.030	
Xylenes, Total	<6.00	mg/m ³	06/24/2004	07/09/2004	bcg	N1501		
807986 1st Stage Carbon								
Air Volume	3.0	Liters	06/24/2004	07/09/2004	bcg			
Benzene (UST)	<0.020	mg	06/24/2004	07/08/2004	eee	NIOSH 1501	0.020	
Benzene	<6.67	mg/m ³	06/24/2004	07/09/2004	bcg	N1501		
Ethyl Benzene (UST)	<0.020	mg	06/24/2004	07/08/2004	eee	NIOSH 1501	0.020	
Ethylbenzene	<6.67	mg/m ³	06/24/2004	07/09/2004	bcg	N1501		
Hydrocarbons, Total (UST)	0.039	mg	06/24/2004	07/08/2004	eee	NIOSH 1550	0.030	
Hydrocarbons, Total	13.0	mg/m ³	06/24/2004	07/09/2004	bcg	N1550		
Toluene (UST)	<0.020	mg	06/24/2004	07/08/2004	eee	NIOSH 1501	0.020	

TOTAL HYDROCARBONS QUANTIFIED AS: Gasoline

Results are not blank corrected.

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Results relate only to the items tested.

Page 3 of 3

ANALYTICAL REPORT

Bert Cole
URS CORPORATION
54 Park Place
Suite 950
Appleton, WI 54914

07/09/2004

Date Received: 06/30/2004

XCEL ENERGY-ASHLAND PROJECT #25688376
CC: DAVE TRAINOR NEWFIELDS CC: BEN NELSON MILWAUKEE, WI

Job Number: 04.08552

	Result	Units	Result	Date Taken	Date Analyzed	Analyst	Analysis Method	Quantitation Limit
807986 1st Stage Carbon								
Toluene	<6.67	mg/m ³		06/24/2004	07/09/2004	bcd	N1501	
Xylenes, Total (UST)	<0.030	mg		06/24/2004	07/08/2004	eee	NIOSH 1501	0.030
Xylenes, Total	<10.0	mg/m ³		06/24/2004	07/09/2004	bcd	N1501	
807987 Air Stripper								
Air Volume	3.0	Liters		06/24/2004	07/09/2004	bcd		
Benzene (UST)	<0.020	mg		06/24/2004	07/09/2004	eee	NIOSH 1501	0.020
Benzene	<6.67	mg/m ³		06/24/2004	07/09/2004	bcd	N1501	
Ethyl Benzene (UST)	<0.020	mg		06/24/2004	07/09/2004	eee	NIOSH 1501	0.020
Ethylbenzene	<6.67	mg/m ³		06/24/2004	07/09/2004	bcd	N1501	
Hydrocarbons, Total (UST)	0.035	mg		06/24/2004	07/09/2004	eee	NIOSH 1550	0.030
Hydrocarbons, Total	11.7	mg/m ³		06/24/2004	07/09/2004	bcd	N1550	
Toluene (UST)	<0.020	mg		06/24/2004	07/09/2004	eee	NIOSH 1501	0.020
Toluene	<6.67	mg/m ³		06/24/2004	07/09/2004	bcd	N1501	
Xylenes, Total (UST)	<0.030	mg		06/24/2004	07/09/2004	eee	NIOSH 1501	0.030
Xylenes, Total	<10.0	mg/m ³		06/24/2004	07/09/2004	bcd	N1501	

TOTAL HYDROCARBONS QUANTIFIED AS: Gasoline

Results are not blank corrected.

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Results relate only to the items tested.

Appendix B Part 1

Smelt Analyses

Laboratory Reporting Forms

Percent Lipids & Percent Solids



**Geotechnical Analysis
Sample Data Summary Package**

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-1-1

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569142

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.9

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/01/04		%	1	0.1	3.1	

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-1-2

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569143

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 23.2

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/01/04		%	1	0.1	3.5	

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-1-3

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569144

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 23.2

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/01/04		%	1	0.1	3.5	

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-1-8

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569149

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 24.5

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/01/04		%	1	0.1	3.3	

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-2-1

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569152

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.5

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/01/04		%	1	0.1	2.4	

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-2-2

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569153

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.1

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/01/04		%	1	0.1	3.0	

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-2-3

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569154

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.5

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/01/04		%	1	0.1	2.5	

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-2-4

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569155

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.6

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/01/04		%	1	0.1	3.2	

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-2-DU

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569160

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.1

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/01/04		%	1	0.1	2.6	

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-2

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569161

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.8

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/01/04		%	1	0.1	3.0	

GEOTECHNICAL / GENERAL CHEMISTRY

Duplicate Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-2REP

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569161DP

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.8

Method	Parameter	Analytical Run Date	Analytical Batch	Units	Sample Result		Duplicate Sample Result		RPD*
					Conc.	Qual.	Conc.	Qual.	
LIPIDS	%Lipids Determination	05/01/04		%	3.0		3.2		6

*Control Limit for RPD is +/- 20%, unless otherwise specified.

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-3-9

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569173

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 23.4

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/02/04		%	1	0.1	3.3	

0042

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GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-3-10

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569174

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.0

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/02/04		%	1	0.1	3.6	

0043

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GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-3-11

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569175

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.3

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/02/04		%	1	0.1	3.2	

0044

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GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-3-12

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569176

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 21.6

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/02/04		%	1	0.1	2.8	

0045

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GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-3-13

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569177

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 21.8

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/02/04		%	1	0.1	2.7	

0046

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GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-3-14

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569178

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 21.2

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/02/04		%	1	0.1	2.9	

0047

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GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-3-15

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569179

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.8

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/02/04		%	1	0.1	3.3	

0048

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-3-16

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569180

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.7

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/02/04		%	1	0.1	3.1	

0049

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GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-3-DU

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569181

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.0

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/02/04		%	1	0.1	3.1	

0050

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GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-3

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569182

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 21.7

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/02/04		%	1	0.1	3.3	

0051

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GEOTECHNICAL / GENERAL CHEMISTRY

Duplicate Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-3REP

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569182DP

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 21.7

Method	Parameter	Analytical Run Date	Analytical Batch	Units	Sample Result		Duplicate Sample Result		RPD*
					Conc.	Qual.	Conc.	Qual.	
LIPIDS	%Lipids Determination	05/02/04		%	3.3		2.6		24

* Control Limit for RPD is +/- 20%, unless otherwise specified.

0052

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-1-4

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569145

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 20.6

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/01/04		%	1	0.1	1.5	

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-1-5

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569146

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.3

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/01/04		%	1	0.1	1.6	

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-1-6

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569147

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 20.5

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/01/04		%	1	0.1	1.7	

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-1-7

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569148

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 21.7

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/01/04		%	1	0.1	1.7	

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-1-DUP

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569150

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 19.6

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/01/04		%	1	0.1	1.4	

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-1

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569151

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 20.8

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/01/04		%	1	0.1	1.5	

GEOTECHNICAL / GENERAL CHEMISTRY

Duplicate Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-1REP

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569151DP

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 20.8

Method	Parameter	Analytical Run Date	Analytical Batch	Units	Sample Result Conc. Qual.	Duplicate Sample Result Conc. Qual.	RPD*
LIPIDS	%Lipids Determination	05/01/04		%	1.5	1.7	13

* Control Limit for RPD is +/- 20%, unless otherwise specified.

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-2-5

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569156

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 23.1

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/01/04		%	1	0.1	1.8	

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-2-6

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569157

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.4

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/01/04		%	1	0.1	1.7	

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-2-7

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569158

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 20.9

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/01/04		%	1	0.1	1.7	

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-2-8

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569159

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 20.3

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/01/04		%	1	0.1	1.6	

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-3-1

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569163

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.8

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/02/04		%	1	0.1	2.1	

0033

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-3-4

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569166

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 20.0

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/02/04		%	1	0.1	1.8	

0034

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-3-5

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569167

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.3

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/02/04		%	1	0.1	1.9	

0035

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-3-6

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569168

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 20.4

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/02/04		%	1	0.1	1.6	

0036

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-3-7

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569169

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.2

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/02/04		%	1	0.1	1.4	

0037

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GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-3-8

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569170

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 21.6

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/02/04		%	1	0.1	1.8	

0038

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-3-DUP

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569171

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 20.6

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/02/04		%	1	0.1	1.6	

0039

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GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-3

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569172

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 20.2

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/02/04		%	1	0.1	1.5	

0040

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GEOTECHNICAL / GENERAL CHEMISTRY

Duplicate Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-3REP

Lab Name: STL BURLINGTON Contract: 25688375 SDG No.: 99877
Lab Code: STLVT Case No.: 24000 Lab Sample ID: 569172DP
Matrix: TISSUE Client: URSCO9 Date Received: 04/24/04
% Solids: 20.2

Method	Parameter	Analytical Run Date	Analytical Batch	Units	Sample Result Conc.	Qual.	Duplicate Sample Result Conc.	Qual.	RPD*
LIPIDS	%Lipids Determination	05/02/04		%	1.5		1.3		14

* Control Limit for RPD is +/- 20%, unless otherwise specified.

0041

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

EB1

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569162

Matrix: WATER

Client: URSCO9

Date Received: 04/24/04

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/01/04		%	1	0.1	0.1	U

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

EB2

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569183

Matrix: WATER

Client: URSCO9

Date Received: 04/24/04

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
LIPIDS	%Lipids Determination	05/02/04		%	1	0.1	0.1	U

0053

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**STL Burlington
Colchester, Vermont**

Extended Data Package

SDG: 99866

**SEVERN
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STL

NARRATIVE

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May 17, 2004

Mr. Brian Berner
URS Corporation
10200 Innovation Dr.
Suite 500
Milwaukee, WI 53226

Re: Laboratory Project No. 24000
Case: 24000; SDG: 99866

Dear Mr. Berner:

Enclosed are the analytical results for samples received by STL Burlington on April 24, 2004. This report is sequentially numbered starting with page 0001 and ending with page 0476. Laboratory numbers have been assigned and designated as follows:

<u>Lab ID</u>	<u>Client Sample ID</u>	<u>Sample Date</u>	<u>Sample Matrix</u>
Received: 04/24/04 ETR No: 99866			
569142	NSTAOMORDAX-W-1-1	04/21/04	Tissue
569143	NSTAOMORDAX-W-1-2	04/21/04	Tissue
569144	NSTAOMORDAX-W-1-3	04/21/04	Tissue
569145	NSTAOMORDAX-F-1-4	04/21/04	Tissue
569146	NSTAOMORDAX-F-1-5	04/21/04	Tissue
569147	NSTAOMORDAX-F-1-6	04/21/04	Tissue
569148	NSTAOMORDAX-F-1-7	04/21/04	Tissue
569149	NSTAOMORDAX-W-1-8	04/21/04	Tissue
569150	NSTAOMORDAX-F-1-DUP	04/21/04	Tissue
569151	NSTAOMORDAX-F-1	04/21/04	Tissue
569151MS	NSTAOMORDAX-F-1MS	04/21/04	Tissue
569151MD	NSTAOMORDAX-F-1MSD	04/21/04	Tissue
569152	NSTAOMORDAX-W-2-1	04/21/04	Tissue
569153	NSTAOMORDAX-W-2-2	04/21/04	Tissue
569154	NSTAOMORDAX-W-2-3	04/21/04	Tissue
569155	NSTAOMORDAX-W-2-4	04/21/04	Tissue
569156	NSTAOMORDAX-F-2-5	04/21/04	Tissue
569157	NSTAOMORDAX-F-2-6	04/21/04	Tissue
569158	NSTAOMORDAX-F-2-7	04/21/04	Tissue
569159	NSTAOMORDAX-F-2-8	04/21/04	Tissue
569160	NSTAOMORDAX-W-2-DUP	04/21/04	Tissue
569161	NSTAOMORDAX-W-2	04/21/04	Tissue
569161MS	NSTAOMORDAX-W-2MS	04/21/04	Tissue
569161MD	NSTAOMORDAX-W-2MSD	04/21/04	Tissue
569162	EB1		Water

0001A

Severn Trent Laboratories, Inc.

Documentation of the condition of the samples at the time their receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Sample Handling section of this submittal.

Client sample identifications were abbreviated on the report forms due to limitations with the data processing software. The entire sample identifier appears in the electronic deliverable with the exception of certain hyphens that were removed due to limitations of the laboratory's login system.

Please note that the results for the samples in this delivery group are reported on a wet weight basis.

An equipment blank was generated at the time of tissue preparation/homogenization. This equipment blank was carried through the analytical process and the results reported on the same weight/weight basis as the samples. The analysis of the equipment blank was free of contamination.

The PAH analyses of the matrix spikes associated with sample NSTAOMORDAX-W-2 yielded percent recoveries for Naphthalene that were below the lower control limit. The associated blank spike analysis exhibited acceptable recoveries for all compounds.

The analytical results presented in this data report were generated under a quality system that adheres to the requirements specified in the NELAC standard. This report shall not be reproduced, except in full, without the written approval of the laboratory. The release of the data in this report is authorized by the Laboratory Director or his designee, as verified by the following signature.

If there are any questions regarding this submittal, please contact Don Dawicki at (802) 655-1203.

Sincerely,



Michael F. Wheeler, Ph.D.
Laboratory Director

Enclosure

0001B (last alpha)

STL Burlington Data Qualifier Definitions

Organic

- U: Compound analyzed but not detected at a concentration above the reporting limit.
- J: Estimated value.
- N: Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds (TICs) where the identification of a compound is based on a mass spectral library search.
- P: Greater than 25% difference for detected concentrations between two GC columns. Unless otherwise specified in project QA plan, the lower of the two values is reported on the Form I.
- C: Pesticide result whose identification has been confirmed by GC/MS.
- B: Analyte is found in the sample and the associated method blank. The flag is used for tentatively identified compounds as well as positively identified compounds.
- E: Compounds whose concentrations exceed the upper limit of the calibration range of the instrument for that specific analysis.
- D: Concentrations identified from analysis of the sample at a secondary dilution.
- A: Tentatively identified compound is a suspected aldol condensation product.
- X,Y,Z: Laboratory defined flags that may be used alone or combined, as needed. If used, the description of the flag is defined in the project narrative.

Inorganic/Metals

- E: Reported value is estimated due to the presence of interference.
- N: Matrix spike sample recovery is not within control limits.
- *: Duplicate sample analysis is not within control limits.
- B: The result reported is less than the reporting limit but greater than the instrument detection limit.
- U: Analyte was analyzed for but not detected above the reporting limit.

Method Codes:

P	ICP-AES
MS	ICP-MS
CV	Cold Vapor AA
AS	Semi-Automated Spectrophotometric

0002



**Sample Report Summary
For Wet Chemistry**

0005

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-1-1

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569142

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.9

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		22.9	

0006

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-1-2

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569143

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 23.2

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		23.2	

0007

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-1-3

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569144

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 23.2

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		23.2	

0008

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-1-8

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569149

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 24.5

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		24.5	

0013

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-2-1

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569152

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.5

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		22.5	

0016

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-2-2

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569153

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.1

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		22.1	

0017

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-2-3

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569154

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.5

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		22.5	

0018

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-2-4

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569155

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.6

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		22.6	

0019

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-2-DU

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569160

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.1

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		22.1	

0024

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-2

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569161

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.8

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		22.8	

0025

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-3-9

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569173

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 23.4

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		23.4	

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-3-10

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569174

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.0

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		22.0	

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-3-11

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569175

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.3

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		22.3	

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-3-12

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569176

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 21.6

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		21.6	

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-3-13

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569177

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 21.8

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		21.8	

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-3-14

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569178

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 21.2

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		21.2	

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-3-15

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569179

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.8

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		22.8	

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-3-16

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569180

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.7

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		22.7	

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-3-DU

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569181

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.0

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		22.0	

WET CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-W-3

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569182

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 21.7

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		21.7	

WET CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-1-4

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569145

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 20.6

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		20.6	

0009

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-1-5

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569146

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.3

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		22.3	

0010

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-1-6

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569147

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 20.5

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		20.5	

0011

WET CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-1-7

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569148

Matrix: TISSUE ..

Client: URSCO9

Date Received: 04/24/04

% Solids: 21.7

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		21.7	

0012

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-1-DUP

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569150

Matrix: ISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 19.6

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		19.6	

0014

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-1

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569151

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 20.8

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		20.8	

0015

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-2-5

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569156

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 23.1

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		23.1	

0020

WET CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-2-6

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569157

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.4

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		22.4	

0021

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-2-7

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569158

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 20.9

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		20.9	

0022

WET CHEMISTRY

Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-2-8

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99866

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569159

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 20.3

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		20.3	

0023

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-3-1

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569163

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.8

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		22.8	

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-3-2

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569164

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 21.1

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		21.1	

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-3-3

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569165

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 21.2

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		21.2	

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-3-4

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569166

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 20.0

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		20.0	

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-3-5

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569167

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.3

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		22.3	

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-3-6

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569168

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 20.4

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		20.4	

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-3-7

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569169

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 22.2

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		22.2	

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-3-8

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569170

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 21.6

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		21.6	

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-3-DUP

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569171

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 20.6

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		20.6	

WET CHEMISTRY
Sample Report Summary

Client Sample No.

NSTAOMORDAX-F-3

Lab Name: STL BURLINGTON

Contract: 25688375

SDG No.: 99877

Lab Code: STLVT

Case No.: 24000

Lab Sample ID: 569172

Matrix: TISSUE

Client: URSCO9

Date Received: 04/24/04

% Solids: 20.2

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
IN623	Solids, Percent	05/04/04	N/A	%	1.0		20.2	



**Supportive Documentation
For Wet Chemistry**

0026



Wet Chemistry Raw Data

For Percent Solids

Method: IN623

Batch: LF

Analyst: MNT

Date Entered: 05-05-04
Entered by: MNT

Date/Time in: 05/04/04 1415

Date Verified: 05-05-04
Verified by: JM3

Date/Time out: 05/05/04 1055

Lab ID	Mass of Dish (g)	Mass of Dish and Wet Sample (g)	Mass of Dish and Dry Sample (g)	Percent Solid
569142	0.97	5.25	1.95	22.8972
569143	0.96	5.45	2.00	23.1626
569144	0.95	5.18	1.93	23.1678
569145	0.95	5.02	1.79	20.6388
569146	0.96	5.26	1.92	22.3256
569147	0.96	5.98	1.99	20.5179
569148	0.96	5.29	1.90	21.7090
569149	0.96	5.17	1.99	24.4656
569150	0.96	5.35	1.82	19.5900
569151	0.97	4.00	1.60	20.7921
569151MD	0.97	4.00	1.60	20.7921
569151MS	0.97	4.00	1.60	20.7921
569152	0.96	5.59	2.00	22.4622
569153	0.97	4.68	1.79	22.1024
569154	0.96	5.36	1.95	22.5000
569155	0.96	5.17	1.91	22.5653
569156	0.95	5.06	1.90	23.1144
569157	0.95	4.34	1.71	22.4189
569158	0.96	5.60	1.93	20.9052

Method: IN623

Batch: LG

Analyst: MNT

Date Entered: 05-05-04
Entered by: MNT

Date/Time in: 05/04/04 1415

Date Verified: 05-05-04
Verified by: JM3

Date/Time out: 05/05/04 1055

Lab ID	Mass of Dish (g)	Mass of Dish and Wet Sample (g)	Mass of Dish and Dry Sample (g)	Percent Solid
569159	0.97	4.71	1.73	20.3209
569160	0.96	5.39	1.94	22.1219
569161	0.95	3.32	1.49	22.7848
569161MD	0.95	3.32	1.49	22.7848
569161MS	0.95	3.32	1.49	22.7848
569163	0.96	4.33	1.73	22.8487
569164	0.95	4.32	1.66	21.0682
569165	0.95	4.87	1.78	21.1735
569166	0.95	3.65	1.49	20.0000
569167	0.96	4.33	1.71	22.2552
569168	0.95	4.68	1.71	20.3753
569169	0.95	5.13	1.88	22.2488
569170	0.95	4.60	1.74	21.6438
569171	0.96	3.87	1.56	20.6186
569172	0.96	4.37	1.65	20.2346
569172MD	0.96	4.37	1.65	20.2346
569172MS	0.96	4.37	1.65	20.2346
569173	0.96	4.90	1.88	23.3503
569174	0.95	5.00	1.84	21.9753
569175	0.95	4.72	1.79	22.2812

0029

Percent Solids Benchsheet

Date In: 05/04/04

Time In: 1415

Analyst: MNM

Date Out: 5/15/04

Time Out: 1055

Analyst: MNM

LAB ID plus EPA ID	Dish #	Mass of Dish (g)	Mass of Dish & Wet Sample (g)	Mass of Dish & Dry Sample (g)
569142	1	0.97	5.25	1.95
569143	2	0.96	5.45	2.00
569144	3	0.95	5.18	1.93
569145	4	0.95	5.02	1.79
569146	5	0.96	5.26	1.92
569147	6	0.96	5.98	1.99
569148	7	0.96	5.29	1.90
569149	8	0.96	5.17	1.99
569149	9			MNM 5/14/04
569150	10	0.96	5.35	1.82
569151	11	0.97	4.00	1.60
569151ms				
569151md				
569152	12	0.96	5.59	2.00
569153	13	0.97	4.68	1.79
569154	14	0.96	5.36	1.95
569155	15	0.96	5.17	1.91
569156	16	0.95	5.06	1.90
569157	17	0.95	4.34	1.71
569158	18	0.96	5.60	1.93

$$\%W/W = \frac{\text{grams dry} - \text{grams wet}}{\text{grams wet}} \times 100$$

Entered by: MNM

Date: 5/15/04

Batch: LF

grams dry = weight of dry sample (g) - weight of dish (g)

grams wet = weight of wet sample (g) - weight of dish (g)

Percent Solids Benchsheet

Date In: 05/04/04
 Time In: 1415
 Analyst: MN1

Date Out: 5/5/04
 Time Out: 1035
 Analyst: MN1

LAB ID plus EPA ID	Dish #	Mass of Dish (g)	Mass of Dish & Wet Sample (g)	Mass of Dish & Dry Sample (g)
569159	19	0.97	4.71	1.73
569160	20	0.96	5.39	1.94
569161	21	0.95	3.32	1.49
569161m1				
569161m1				
569163	22	0.96	4.33	1.73
569164	23	0.95	4.32	1.66
569165	24	0.95	4.87	1.78
569166	25	0.95	3.65	1.49
569167	26	0.96	4.33	1.71
569168	27	0.95	4.68	1.71
569169	28	0.95	5.13	1.88
569170	29	0.95	4.60	1.74
569171	30	0.96	3.87	1.56
569172	31	0.96	4.37	1.65
569172m1				
569172m1				
569173	32	0.96	4.90	1.88
569174	33	0.95	5.00	1.84
569175	34	0.95	4.72	1.79

$$\%W/W = \frac{\text{grams dry}}{\text{grams wet}} \times 100$$

Entered by: MN1Date: 5/5/04Batch: 016

grams dry = weight of dry sample (g) - weight of dish (g)

grams wet = weight of wet sample (g) - weight of dish (g)

0031

Method: IN623

Batch: LF

Analyst: MNT

Date Entered: 05-05-04
Entered by: MNT

Date/Time in: 05/04/04 1415

Date Verified: 05-05-04
Verified by: JM3

Date/Time out: 05/05/04 1055

Lab ID	Mass of Dish (g)	Mass of Dish and Wet Sample (g)	Mass of Dish and Dry Sample (g)	Percent Solid
569142	0.97	5.25	1.95	22.8972
569143	0.96	5.45	2.00	23.1626
569144	0.95	5.18	1.93	23.1678
569145	0.95	5.02	1.79	20.6388
569146	0.96	5.26	1.92	22.3256
569147	0.96	5.98	1.99	20.5179
569148	0.96	5.29	1.90	21.7090
569149	0.96	5.17	1.99	24.4656
569150	0.96	5.35	1.82	19.5900
569151	0.97	4.00	1.60	20.7921
569151MD	0.97	4.00	1.60	20.7921
569151MS	0.97	4.00	1.60	20.7921
569152	0.96	5.59	2.00	22.4622
569153	0.97	4.68	1.79	22.1024
569154	0.96	5.36	1.95	22.5000
569155	0.96	5.17	1.91	22.5653
569156	0.95	5.06	1.90	23.1144
569157	0.95	4.34	1.71	22.4189
569158	0.96	5.60	1.93	20.9052

Method: IN623

Batch: LG

Analyst: MNT

Date Entered: 05-05-04
Entered by: MNT

Date/Time in: 05/04/04 1415

Date Verified: 05-05-04
Verified by: JM3

Date/Time out: 05/05/04 1055

Lab ID	Mass of Dish (g)	Mass of Dish and Wet Sample (g)	Mass of Dish and Dry Sample (g)	Percent Solid
569159	0.97	4.71	1.73	20.3209
569160	0.96	5.39	1.94	22.1219
569161	0.95	3.32	1.49	22.7848
569161MD	0.95	3.32	1.49	22.7848
569161MS	0.95	3.32	1.49	22.7848
569163	0.96	4.33	1.73	22.8487
569164	0.95	4.32	1.66	21.0682
569165	0.95	4.87	1.78	21.1735
569166	0.95	3.65	1.49	20.0000
569167	0.96	4.33	1.71	22.2552
569168	0.95	4.68	1.71	20.3753
569169	0.95	5.13	1.88	22.2488
569170	0.95	4.60	1.74	21.6438
569171	0.96	3.87	1.56	20.6186
569172	0.96	4.37	1.65	20.2346
569172MD	0.96	4.37	1.65	20.2346
569172MS	0.96	4.37	1.65	20.2346
569173	0.96	4.90	1.88	23.3503
569174	0.95	5.00	1.84	21.9753
569175	0.95	4.72	1.79	22.2812

0029

Percent Solids Benchsheet

Date In: 05/04/04

Time In: 1415

Analyst: MNM

Date Out: 5/15/04

Time Out: 1055

Analyst: MNM

LAB ID plus EPA ID	Dish #	Mass of Dish (g)	Mass of Dish & Wet Sample (g)	Mass of Dish & Dry Sample (g)
569142	1	0.97	5.25	1.95
569143	2	0.96	5.45	2.00
569144	3	0.95	5.18	1.93
569145	4	0.95	5.02	1.79
569146	5	0.96	5.26	1.92
569147	6	0.96	5.98	1.99
569148	7	0.96	5.29	1.90
569149	8	0.96	5.17	1.99
569149	9			MNM 5/14/04
569150	10	0.96	5.35	1.82
569151	11	0.97	4.00	1.60
569151ms				
569151md				
569152	12	0.96	5.59	2.00
569153	13	0.97	4.68	1.79
569154	14	0.96	5.36	1.95
569155	15	0.96	5.17	1.91
569156	16	0.95	5.06	1.90
569157	17	0.95	4.34	1.71
569158	18	0.96	5.60	1.93

$$\%W/W = \frac{\text{grams dry} - \text{grams wet}}{\text{grams wet}} \times 100$$

Entered by: MNM

Date: 5/15/04

Batch: LF

grams dry = weight of dry sample (g) - weight of dish (g)

grams wet = weight of wet sample (g) - weight of dish (g)

Percent Solids Benchsheet

Date In: 05/04/04
 Time In: 1415
 Analyst: MN1

Date Out: 5/5/04
 Time Out: 1035
 Analyst: MN1

LAB ID plus EPA ID	Dish #	Mass of Dish (g)	Mass of Dish & Wet Sample (g)	Mass of Dish & Dry Sample (g)
569159	19	0.97	4.71	1.73
569160	20	0.96	5.39	1.94
569161	21	0.95	3.32	1.49
569161m1				
569161m1				
569163	22	0.96	4.33	1.73
569164	23	0.95	4.32	1.66
569165	24	0.95	4.87	1.78
569166	25	0.95	3.65	1.49
569167	26	0.96	4.33	1.71
569168	27	0.95	4.68	1.71
569169	28	0.95	5.13	1.88
569170	29	0.95	4.60	1.74
569171	30	0.96	3.87	1.56
569172	31	0.96	4.37	1.65
569172m1				
569172m1				
569173	32	0.96	4.90	1.88
569174	33	0.95	5.00	1.84
569175	34	0.95	4.72	1.79

$$\%W/W = \frac{\text{grams dry}}{\text{grams wet}} \times 100$$

Entered by: MN1Date: 5/5/04Batch: 016

grams dry = weight of dry sample (g) - weight of dish (g)

grams wet = weight of wet sample (g) - weight of dish (g)

0031